

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
LIBRARY OF CONGRESS
Washington, D.C.

In the Matter of:

**DETERMINATION OF ROYALTY RATES
AND TERMS FOR MAKING AND
DISTRIBUTING PHONORECORDS
(*Phonorecords IV*)**

**Docket No. 21-CRB-0001-PR
(2023-2027)**

WRITTEN DIRECT STATEMENT OF GOOGLE LLC

Volume 2 of 3

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TAB A

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**WRITTEN DIRECT TESTIMONY OF CARLETTA HIGGINSON
(On Behalf of Google LLC)**

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I. INTRODUCTION AND WITNESS BACKGROUND

1. My name is Carletta Higginson. This declaration is based on my personal knowledge, including any information made known to me in the course of performing my duties while I have been employed at Google LLC (“**Google**”). I submit this testimony in support of Google’s direct case.

2. I am the Director and Global Head of Music Publishing for the YouTube division of Google. I developed and directed YouTube’s music licensing strategy with music publishers, working closely with my team responsible for licensing the rights to sound recordings from record labels. I am deeply familiar with YouTube Music and its music licensing.

3. To summarize my career prior to Google, I graduated from New York University in 1999 with degrees in Psychology, Sociology, and Women’s Studies and received my law degree from Columbia University School of Law in 2003. After graduating, I began working as a Litigation Associate at Pryor Cashman Sherman & Flynn, LLP. I then joined Jenner & Block LLP in 2006 and was elected a partner in 2010.

4. In 2013, I left Jenner & Block and joined Google as a Manager of Music Publishing Partnerships. After three years, I became Corporate Counsel before taking the position of Head of Music Partnerships at YouTube, where, among other things, I structured, negotiated, and secured licensing and partnership agreements with music publishers. I became Director and Global Head of Music Publishing for YouTube in 2018.

5. I directly manage a team of 12 people who work on all matters related to music publishing, including negotiating the rates and terms of licenses with music publishers. I also indirectly manage regional team members. The team includes lawyers who negotiate the

agreements. My team and I work closely with a YouTube operations, legal, and finance team that implements the terms of our license agreements and payments of royalties to our licensors.

6. While at Google, I have been personally involved in music-licensing negotiations with music publishers and performing rights organizations (“PROs”), such as [REDACTED] and collective management organization (“CMOs”), such as [REDACTED] and others. I have personal knowledge of the negotiations for Google’s existing licenses with both large and small music publishers and have participated directly in our negotiations with [REDACTED]

II. GOOGLE’S INTEREST IN THIS PROCEEDING

7. Google is a multinational technology company that offers Internet-related products and services seeking to organize the world’s information and make it universally accessible and useful. Its broad product offerings include its search engine, the YouTube streaming service, a hardware division, software as a service, online advertising technologies, and many others.

8. YouTube helps to power the creative economy by ensuring that creators and artists have a way to share and make money from their content. YouTube accomplishes this in two ways in partnership with the music industry: with a subscription offering and an advertising-supported offering, which include content from rightsholders, creators, and artists, as well as original User Generated Content (“UGC”). Services that host UGC, such as YouTube, are stimulating an

¹ Our voluntary license agreements with [REDACTED] and [REDACTED]

[REDACTED] in this statement, though they would not change Google’s proposal or position in this proceeding.

explosion of new creativity—by making it easier than ever for creators of all types, amateur and professional, new and established, to find their audience—and generating significant income for rightsholders whose works are used in UGC.

9. In June 2021, YouTube announced that it had paid over \$4 billion to the music industry worldwide in the preceding 12-month period ending March 2021—including considerable mechanical royalties for the reproduction and distribution of musical works. Google has a substantial interest in the outcome of this proceeding before the Copyright Royalty Board (“**CRB**”).

III. GOOGLE’S PRODUCT OFFERINGS

A. Google’s Current Music Offerings

10. Google’s offerings that include music have evolved over time and have been made available to the public in different configurations and under different product names. For example, Google previously operated the Google Music cloud media player (launched in November 2011), which then became Google Play Music. Google Play Music was deprecated in December 2020. Today Google’s relevant music services are consolidated within YouTube.

11. Google’s offerings with music include YouTube.com, YouTube Music (“**YTM**”), YouTube Music Premium (“**YTMP**”), and YouTube Premium (“**YTP**”), which are available both on the Web and through mobile applications.

12. YouTube.com is a free-to-the user, ad-supported video streaming service with videos that may include music. Within Google, YouTube ad-supported services may be referred to internally as Ad-supported Video-on-Demand services, or “**AVOD**.” Subscription supported services may be referred to as Subscription Video-on-Demand services, or “**SVOD**.”

13. YTM is a music streaming service that operates using the YouTube video streaming service's infrastructure. YTM offers consumers a music-forward version of YouTube, focusing on commercially released sound recordings in the form of individual tracks, albums, and playlists, via both a mobile application and via desktop. YTM also offers consumers access to audiovisual works, including label-produced music videos, user-created videos, and artist interviews. YTM is a free-to-the-user, ad-supported service, which requires a live Internet connection for use. YTM is referred to internally as an AVOD service.

14. YTMP is a subscription-based version of YTM that is ad-free. Subscriptions are available for \$9.99 per month per individual subscriber, with a discounted \$4.99 student subscription offering and a \$14.99 family subscription offering. YTMP, which we refer to internally as an SVOD service, is a premium offering that provides additional functionalities that are not available to YTM users. In addition to playing music without ads, YTMP allows for background play, meaning a subscriber can close the YTM app and still listen to music. Background play is not available on YTM. YTMP also provides for offline listening, meaning a user can download music to their mobile phone and listen without an active Internet connection (*e.g.*, when in airplane mode). YTMP also provides users with the ability to listen to music in audio-only mode, meaning the consumer does not need to watch an audiovisual work in order to listen to music while the app is open.

15. YTP is also a subscription based—or SVOD—offering that provides ad-free access to the immense and varied array of videos available on YouTube, which may or may not include music. YTP allows for the downloading of videos (with and without music) and playlists for offline consumption, and permits listening in background mode or while one is using other apps.

A subscription to YTP includes YTMP, and is available for \$11.99 per month per individual subscriber, with a discounted price of \$6.99 per student subscriber and \$17.99 for a family plan.

B. Google's Offerings Contain Various Types of Music and Non-Music Content

16. Google's offerings contain various types of music content, including commercially released sound recordings, label-produced music videos, label-approved music videos, user-generated videos (where the music in the video is a commercially released sound recording), and user-generated cover videos.

17. Label-produced music videos (commonly known as "**Official Videos**") typically feature a recording artist performing a song while the corresponding sound recording plays. These are the types of videos that became famous on MTV.

18. [REDACTED]
[REDACTED] which involves the performance of a sound recording while a single static image is displayed for the consumer. Many of the static images will be front-cover album artwork for the commercially released sound recording.

19. [REDACTED]
[REDACTED]
[REDACTED]

20. Another content category is UGC, many of which may include a commercially released sound recording in which a musical work is embodied. Examples include dance videos, lip-sync videos, and reaction videos. UGC does not always include commercially released sound recordings. UGC often involves a user performing and recording their playing a song or simply reacting to an Official Video.

21. Google can also provide a user with access to a sound recording included in a music video, including an Official Video, using background play (e.g., without having to watch the video).

22. The above paragraphs describe examples of the various music content available on YouTube. Of course, YouTube also includes vast amounts of videos that do not use any music. Examples include the many, many cat and other pet videos on YouTube.

23. All of these content categories vie for consumer attention on YouTube and many of them [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

IV. GOOGLE'S NEGOTIATED AGREEMENTS WITH MUSIC PUBLISHERS

A. Google Has Negotiated [REDACTED] License Agreements with Music Publishers

24. My team and I negotiate Google's agreements with music publishers. I personally am involved in the negotiations with [REDACTED] and I approve all other licenses with music publishers that deviate from [REDACTED], which have evolved over time. I also approve Google's [REDACTED]

25. Our publishing licenses have been in force for many years. Both Google and music publishers have come to a general consensus [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Following the CRB's *Phonorecords III* determination, for example, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

26. Google is not able to rely upon the statutory license set forth in Section 115 of the Copyright Act (the “Section 115 License” or “Section 115”) for all content that includes music. For example, the display of an Official Video is not eligible for licensing under Section 115 (or any other statutory license in the Copyright Act). To ensure that it can make Official Videos—and certain other content—available to the public, Google [REDACTED]

27. Music publishers are not required to license Google for activities that are not eligible for the Section 115 License. In those instances, we [REDACTED]

28. Google has entered into [REDACTED] voluntary licenses with music publishers through these negotiations, including both major publishers and so-called independents. Most have [REDACTED] Exhibits 1–6 include

[REDACTED] Exhibits 7–12 identifies [REDACTED]

[REDACTED] Exhibits 13 through 92 are [REDACTED]³

³ See also Index of Exhibits, Vol. 1, Tab E.

B. Google and the Music Publishers Have

29.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

TABLE IV.B.1	
Common Description	License Agreement(s) Description
Official Videos (e.g., the type historically shown on MTV)	[REDACTED]
User Generated Content	[REDACTED]
Record-Label Delivered Sound Recordings	[REDACTED]

30. Google and music publishers have

[REDACTED]

[REDACTED]

[REDACTED] Table IV.B.2 provides [REDACTED]

[REDACTED]

[REDACTED]

31. As noted previously, some uses of musical works made by Google are subject to the Section 115 License while others are not. Google's direct deals [REDACTED]

[REDACTED]

[REDACTED] Google and the music publishers [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

32. Additionally, Google and music publishers [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

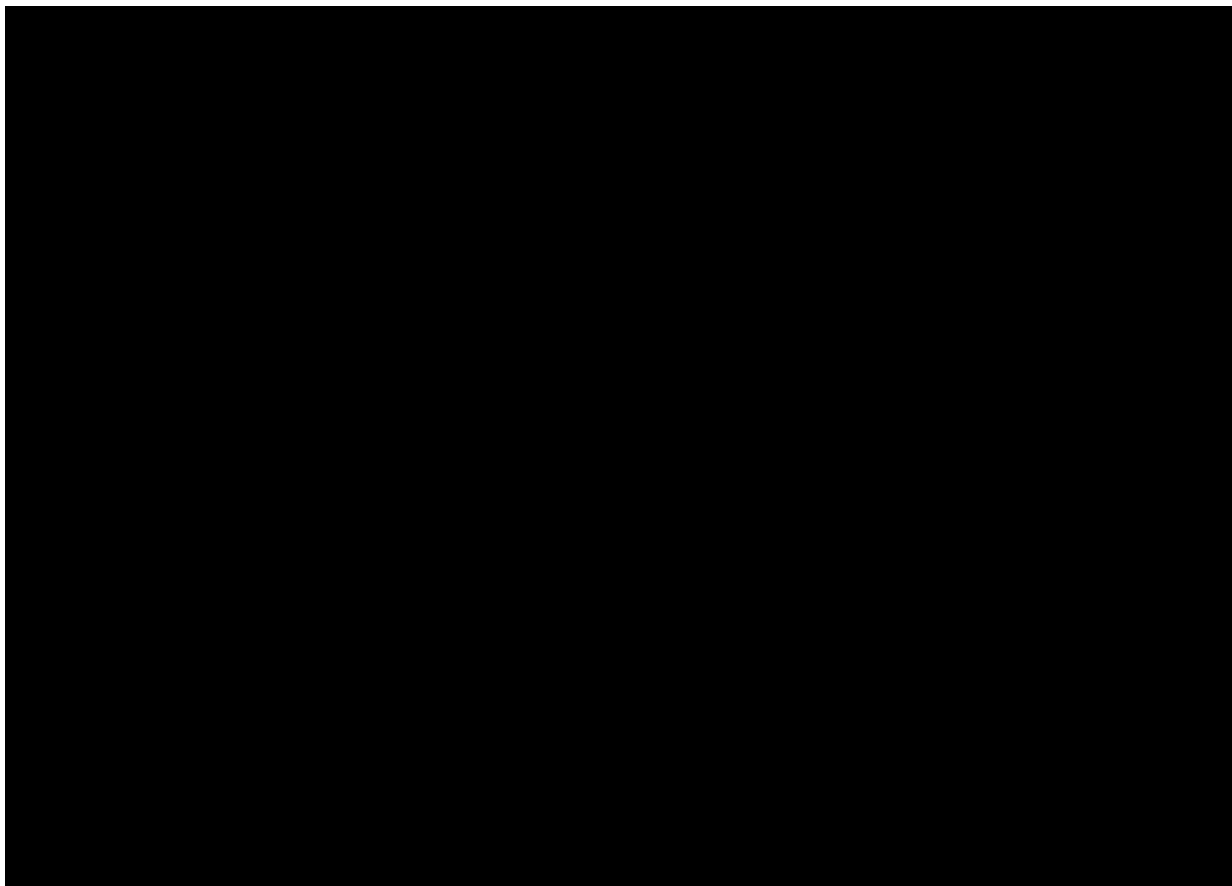
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] as shown in

the below graphic:



⁶ A spreadsheet [REDACTED]
[REDACTED] is attached as Google Ex. 93 (GOOG-PHONOIV-00003933-34).

C. [REDACTED], Google and the Music Publishers [REDACTED]

33. [REDACTED]

[REDACTED] Compensating rights owners in such situations requires a balancing of interests so that compensation can be paid out in a fair and equitable manner.

34. To address this situation, [REDACTED]

35. [REDACTED]

If a subscriber pays Google \$11.99 for a subscription to YTP for access to ad-free music and ad-free videos, among other things, [REDACTED]

36. Importantly, when I talk about [REDACTED], I am not referring to what is sometimes called a “bundled subscription offering” as that term is currently defined in the regulations. For the purposes of my testimony, I use “bundled offering” to refer to a situation where two or more different products that are separately priced are offered to a consumer for a

single price. A familiar example is where a consumer can separately pay \$9.99 per month for access to an on-demand music service, \$45 per month for a wireless phone plan, and \$13.99 for access to a streaming video offering but is able to bundle all three of these offerings for a discounted monthly rate.⁷ YTMP and YTP are not bundles in the same sense; the mix of content on these services is not separately priced and offered to consumers on a standalone basis. Nevertheless, YTMP and YTP offer consumers a mix of content, some of which is audio-only content and some of which is audiovisual.

37. Google [REDACTED]

[REDACTED] Google does this through a process I refer to as “Allocation.”

38. An example of Allocation is illustrative. Assume for the purposes of this example that [REDACTED]

[REDACTED] YouTube subscribers consume a variety of content. For purposes of this example, I have used in Table IV.C.1 the 2020 SVOD views for the hypothetical [REDACTED]

⁷ Verizon Wireless currently offers numerous examples of such bundled offerings on its website. *See Verizon Unlimited Plans* <https://www.verizon.com/plans/unlimited/> (last visited Sep. 27, 2021).

[REDACTED]

39. [REDACTED]

[REDACTED]

[REDACTED] I refer to this as

“Total Allocation” for the purposes of this statement.⁸ In this example, for [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

⁸ “Total Allocation” may have a different meaning [REDACTED]
[REDACTED] *See, e.g.,* Google Ex. 16 (GOOG-PHONOIV-00002209-58), [REDACTED] effective as of Nov. 1, 2017, Ex. A. Definitions [REDACTED].

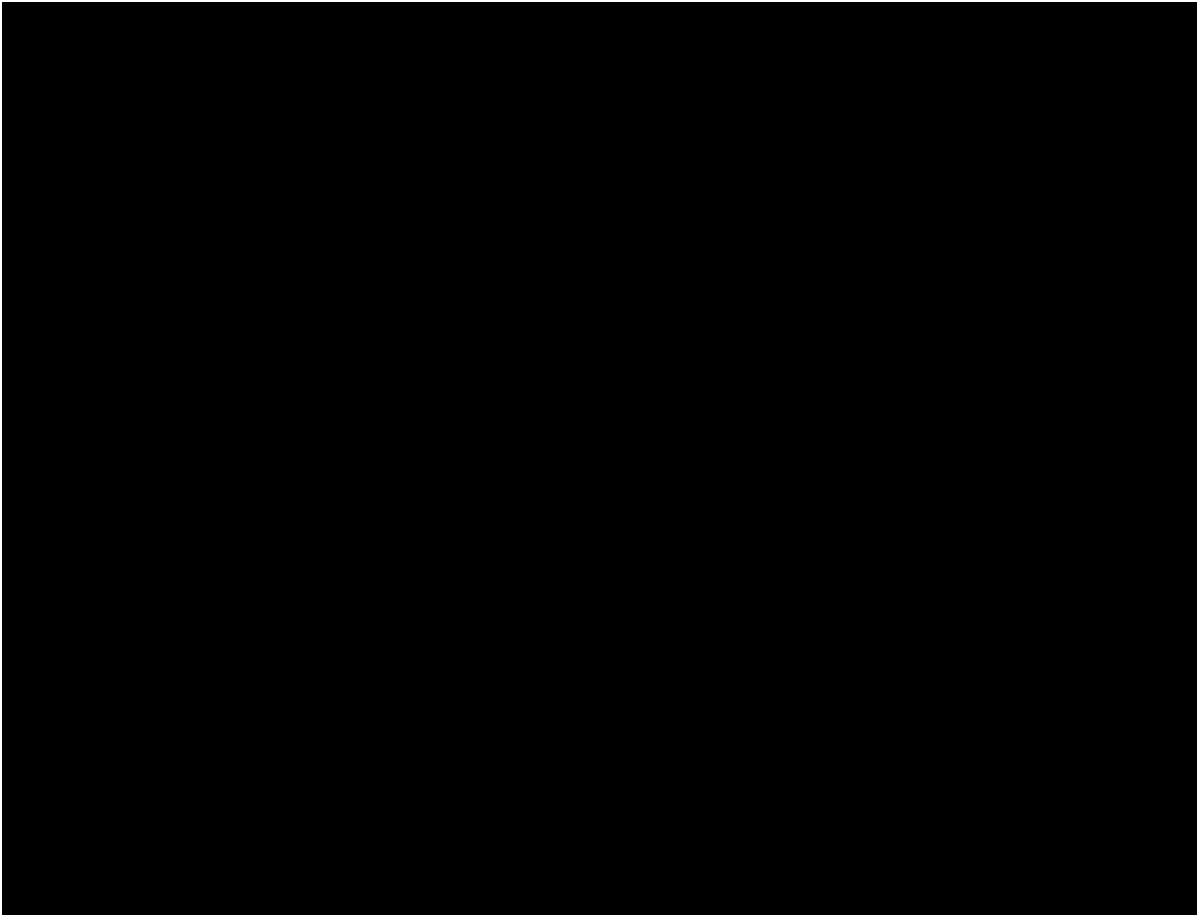
40. [REDACTED]

[REDACTED] In addition to its music
license obligations, Google [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]

41. A handful of Google's voluntary licenses [REDACTED]

[REDACTED] In the simplest case, these licenses [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

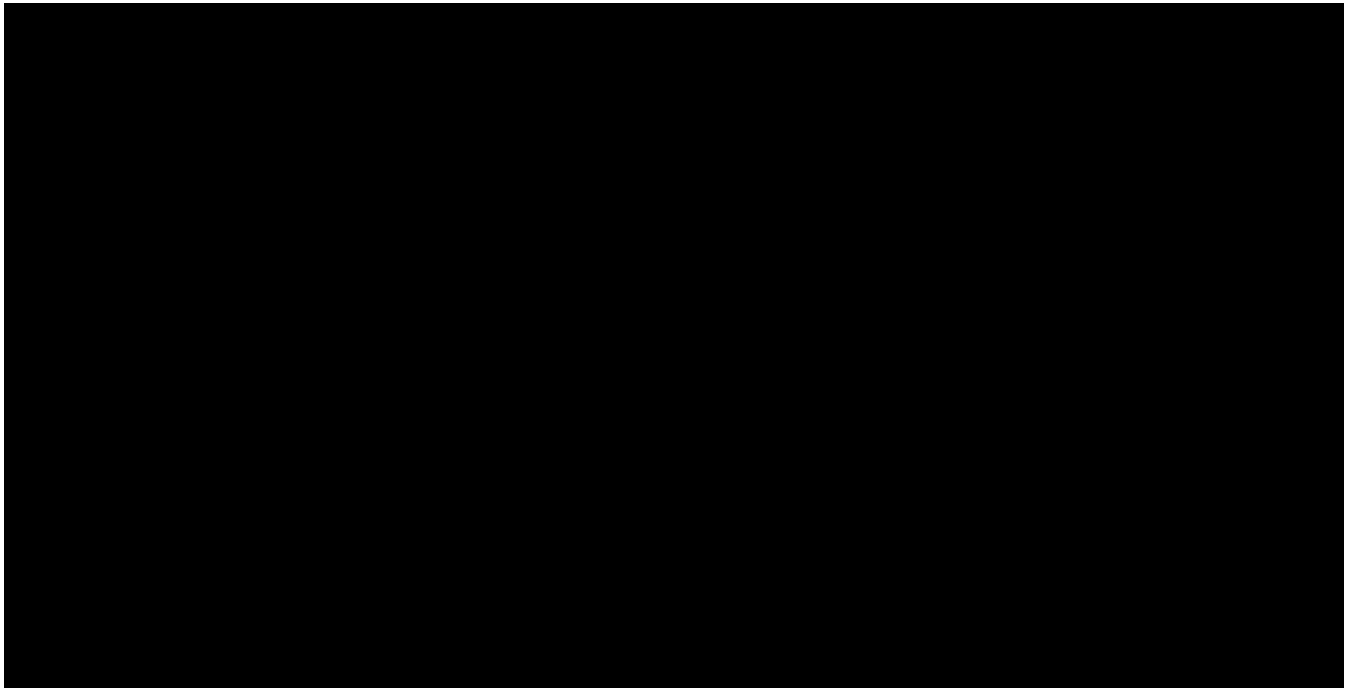


42. For purposes of providing the [REDACTED] of royalties, let's assume that YouTube's Total Content Cost ("TCC") for such subscribers in the form of royalty payments to record labels [REDACTED]

[REDACTED]

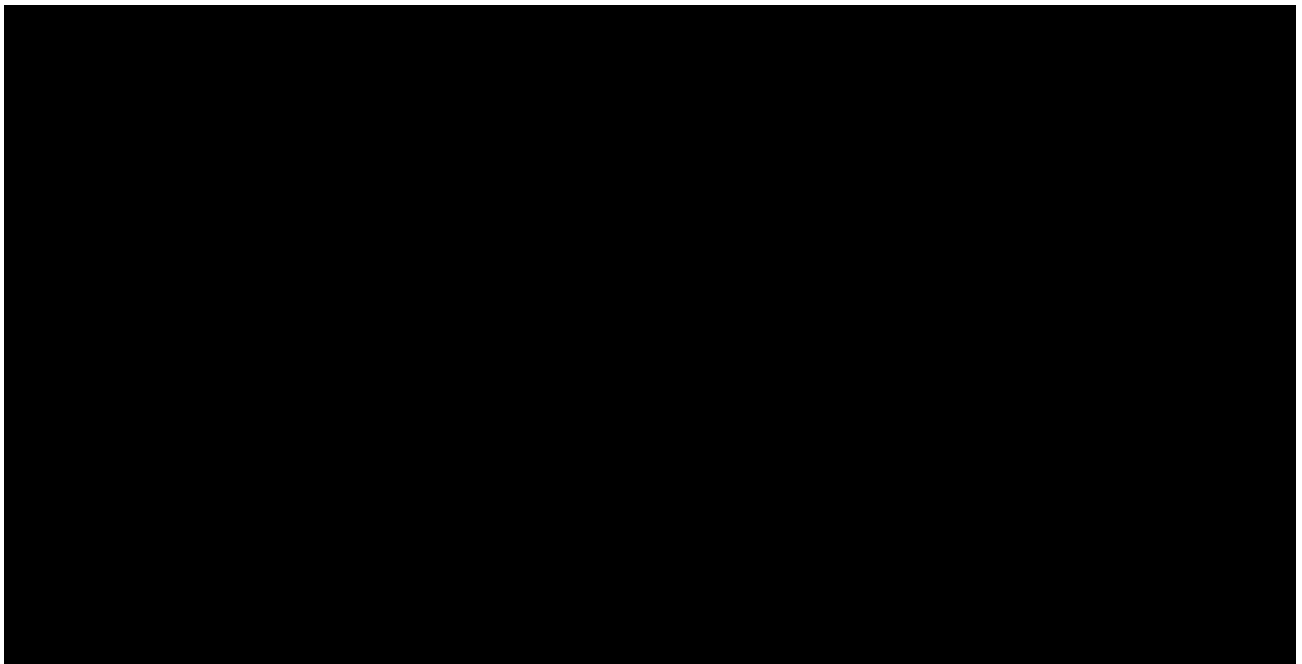
43. In Table IV.C.3 below I've calculated Google's payable royalties as a percentage of revenue using Total Allocation, [REDACTED]

⁹ Percentages are rounded to the nearest whole number.



44. In Table IV.C.4 below I calculate Google's payable royalties as a percentage of revenues using the same royalty rates but using [REDACTED]

[REDACTED]



[REDACTED]

45.

[REDACTED] for content licensed under Section 115 versus content licensed directly if Google were to rely upon the Section 115 compulsory licenses for some of its uses of musical works, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] This would provide an inequitable windfall to copyright owners and penalize Google and other services that license rights to musical works from music publishers while also operating under the Section 115 license.

46. In Table IV.C.5 below I have calculated what Google's payable royalties would be for the assumed [REDACTED] other than for performance royalties:

[REDACTED]

47. As Google's Section 115 payments are presently [REDACTED]

[REDACTED]

[REDACTED] to see the consequences of not using either [REDACTED]

[REDACTED]

The amounts payable per month and annually would be as follows:

[REDACTED]

48. As Table IV.C.6 shows, if the Section 115 regulations do not provide for Allocation of revenues, TCC or PSMs, Google's annual royalties payable under Section 115 would be nearly

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] And, that increase represents double payments to publishers for the same content. Where a statutory licensee offers [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

D. Google and Music Publishers Have Worked Through In Great Detail [REDACTED]

49. As I describe below, Google's agreements set forth in great detail [REDACTED]

[REDACTED] There is some variance in the specifics. But, there are three constants [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

1. [REDACTED]

50. Google's voluntary agreements in the United States [REDACTED]

[REDACTED]

[REDACTED]

(i) *Advertising Revenues.*

51. YouTube is primarily an advertising-supported service—albeit with subscription components for YTMP and YTP. Accordingly, we pay royalties to [REDACTED]

[REDACTED]

[REDACTED]

52. A precise and appropriate definition of [REDACTED] is important for our business because, [REDACTED], licensors should be paid solely on revenues directly attributable to their content. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

¹¹ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Section 1.1.

¹² Google Ex. 14 (GOOG-PHONOIV-00000241-80), [REDACTED]. - Google LLC Publishing License Agreement effective as of [REDACTED], Section 1.1 [REDACTED]

54. The principal difference between the [REDACTED]

[REDACTED]

[REDACTED] 13

55. I have included these definitions to highlight the fact that [REDACTED]

[REDACTED]

56. Limiting revenues on an ad-supported service to portions of the service that provide for Section 115-eligible activities is important so as to only compensate copyright owners for user engagement related to their content. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

57. Critically, Google's [REDACTED]

[REDACTED]

This is true even where Google and music publishers have [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

13

[REDACTED]

for the purpose of this section of my statement.

58. Finally, Google's voluntary licenses [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(ii) *Subscription Revenues.*

59. [REDACTED]

[REDACTED]

[REDACTED]

60. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

61. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]¹⁴

62. [REDACTED]

[REDACTED]

[REDACTED]¹⁵

63. [REDACTED]

[REDACTED]

[REDACTED]¹⁶

¹⁴ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Section 1.1.

¹⁵ Google Ex. 14 (GOOG-PHONOIV-00000241-80), [REDACTED] License, Section 1.1.

¹⁶ Google Ex. 16 (GOOG-PHONOIV-00002209-58), [REDACTED] License, Exhibit A, Definitions.

64. I have included the sample definitions of [REDACTED]

[REDACTED]

[REDACTED] The foregoing definitions are the result of arm's-length negotiations across [REDACTED] license agreements between Google and music publishers. I am not aware of the existing regulatory definition of Service Revenue [REDACTED] In fact, even when Google and music publishers have [REDACTED]

[REDACTED]

[REDACTED]

65. [REDACTED]

[REDACTED]

[REDACTED]

66. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

2. [REDACTED]

67. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

68. I understand that Amazon is proposing a per-play rate structure as part of its proposal in this rate proceeding for Amazon Music Prime. I do not offer a view on the appropriateness of a per-play rate for Amazon Music Prime. However, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

3. Allocation of the [REDACTED]

69. Google pays [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

70. [REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

71. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

72. [REDACTED]

[REDACTED]

[REDACTED]

¹⁷ For example, Google's [REDACTED]

[REDACTED] This heading needs to then be read in conjunction with the fact that [REDACTED]

[REDACTED] See Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Exhibit A, Sections 1.b, 2.,b, 3.b, 4.b, and 5.b, which all state [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

18

73.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

74.

[REDACTED]

[REDACTED]

20

¹⁸ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Exhibit A, Section 6.

¹⁹ [REDACTED]
[REDACTED] See, e.g., Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Section 1.1.

²⁰ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Section 1.1.

75. Essential to understanding the definition of “Total Allocation” [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

76. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

77. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

²¹ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Section 1.1.

E. [REDACTED] **Support Further Revisions to Regulations in 37 C.F.R. Part 385.**

78. Below, [REDACTED]

[REDACTED]

1. Late Fees.

79. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

80. [REDACTED]

[REDACTED]

2. Click Fraud.

81. Google works diligently to prevent fraudulent activity on YouTube, but it is a persistent struggle. By “fraudulent,” I mean intentionally manipulated activity intended to increase the number of streams of specific tracks or videos. This fraudulent activity can be the result of a user repeatedly clicking a video to drive up view counts or it can result from computer programs (known as “bots”) that drive up streams.

²² 17 U.S.C. Section 115(c)(2)(J).

82. [REDACTED]:

[REDACTED]

²³

83. [REDACTED]

[REDACTED]

²⁴

84. [REDACTED]

[REDACTED]

²³ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Section 5.7.

²⁴ Google Ex. 16 (GOOG-PHONOIV-00002209-58), [REDACTED] License, Section 5.4.

3. Inflation Adjustment.

85. [REDACTED]

86. [REDACTED]

87. [REDACTED]

²⁵ See, e.g., Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Section 11.1 [REDACTED]

Google Ex. 16 (GOOG-PHONOIV-00002209-58), [REDACTED] License, Section 11.1 [REDACTED]

²⁶ See generally, e.g., Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED]; Google Ex. 16 (GOOG-PHONOIV-00002209-58), [REDACTED] License.

²⁷ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Exhibit A, Section 5(c).

4. Free Trial Accounts.

88. It is challenging to acquire new subscribers to a paid-subscription service. There are numerous competing services vying for the same potential subscriber. And modern consumers are now faced with deciding how to spend their entertainment dollars amongst a fragmented and robust content market providing access to different forms of entertainment: music, video games, or the ever increasing number of online video streaming services offering exclusive content (e.g., Amazon Prime, Disney Plus, HBO Max, Hulu, Netflix, Showtime, Peacock, etc.).

89. In recognition of the challenge of acquiring new subscribers, music publishers have

[REDACTED]

[REDACTED] Accordingly, the regulations should reflect [REDACTED]

[REDACTED]

90. [REDACTED]

[REDACTED]

[REDACTED]

28

91. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

29

²⁸ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Exhibit A, Section 14; Google Ex. 14 (GOOG-PHONOIV-00000241-80), [REDACTED], Exhibit A, Section 12.

²⁹ Google Ex. 16 (GOOG-PHONOIV-00002209-58), [REDACTED], Exhibit B, Section 10.

92. The current regulations waiving PSMs for “Free Trials” is inconsistent with

[REDACTED]

[REDACTED]

93. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(3) In connection with the Offering, the Service Provider is operating with appropriate musical license authority and complies with the recordkeeping requirements in § 385.4;

(4) Upon receipt by the Service Provider of written notice from the Copyright Owner or its agent stating in good faith that the Service Provider is in a material manner operating without appropriate license authority from the Copyright Owner under 17 U.S.C. § 115, the Service Provider shall within 5 business days cease transmission of the sound recording embodying that musical work and withdraw it from the repertoire available as part of a Free Trial Offering;

(5) The Free Trial Offering is made available to the End User free of any charge; and

(6) The Service Provider offers the End User periodically during the free usage an opportunity to subscribe to a non-free Offering of the Service Provider.

94. The definition of Free Trials [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

5. Promotional Plans.

95. Google also [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

96. The regulations adopted in the *Phonorecords III* proceeding only provided for discounts for Family Plans and Student Plans, each of which is a defined term in the regulations:

Family Plan means a discounted subscription to be shared by two or more family members for a single subscription price.³⁰

Student Plan means a discounted Subscription to an Offering available on a limited basis to students.³¹

97. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

³⁰ 37 C.F.R. 385.2.

³¹ 37 C.F.R. 385.2.

³² See, e.g., Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Exhibit A, Section 15(b) [REDACTED]; Google Ex. 16 (GOOG-PHONOIV-00002209-58), [REDACTED] License Agreement, Exhibit B, Section 14.b [REDACTED]; Google Ex. 14 (GOOG-PHONOIV-00000241-80), [REDACTED], Exhibit A, Section 13(a).

³³ See, e.g., Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Exhibit A, Section 15(d) [REDACTED]; Google Ex. 16 (GOOG-PHONOIV-00002209-58), [REDACTED] License Agreement, Exhibit B, Section

[REDACTED]

98. In each of the foregoing scenarios, Google and music publishers [REDACTED]

[REDACTED]

99. [REDACTED]

[REDACTED]

14.d [REDACTED]; Google Ex. 14 (GOOG-PHONOIV-00000241-80), [REDACTED] License, Exhibit A, Section 13(d).

³⁴ See, e.g., Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Exhibit A, Section 15(e) [REDACTED]; Google Ex. 16 (GOOG-PHONOIV-00002209-58), [REDACTED] License Agreement, Exhibit B, Section 14.e [REDACTED]; Google Ex. 14 (GOOG-PHONOIV-00000241-80), [REDACTED] License, Exhibit A, Section 13(e).

³⁵ See, e.g., Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Exhibit A, Section 15(f) [REDACTED]; Google Ex. 16 (GOOG-PHONOIV-00002209-58), [REDACTED] License Agreement, Exhibit B, Section 14.f [REDACTED]; Google Ex. 14 (GOOG-PHONOIV-00000241-80), [REDACTED] License, Exhibit A, Section 13(f).

³⁶ See, e.g., Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Exhibit A, Section 15(g) [REDACTED]; Google Ex. 14 (GOOG-PHONOIV-00000241-80), [REDACTED] License, Exhibit A, Section 13(g).

³⁷ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Exhibit A, Sections 15(a)-(g).

[REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

c

■

100. Notably, with respect to Family Plans, ■

■ I understand that this was an issue in *Phonorecords III* but ■

■

V. CONCLUSION

101. My group and I have spent countless hours working to develop positive and mutually beneficial relationships with music publishers on issues we know are important to songwriters, music publishers, and Google. The ■ license agreements we have entered into with music publishers are the product of those efforts and provide a solid foundation for long-term relationships. These agreements have worked well for many years now and music publishers continue to renew their agreements with Google under the terms of those agreements.

38

■, which was a promotional category adopted in *Phonorecords III*.

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
LIBRARY OF CONGRESS
Washington, D.C.

In the Matter of:

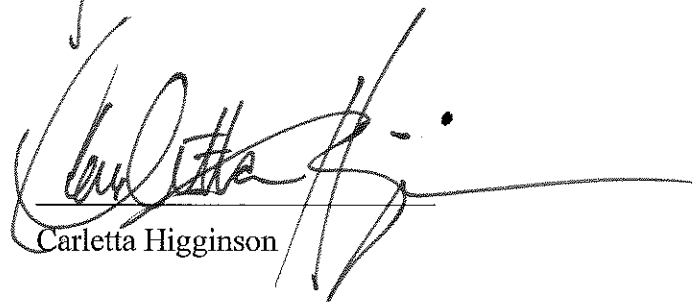
DETERMINATION OF ROYALTY RATES
AND TERMS FOR MAKING AND
DISTRIBUTING PHONORECORDS
(*Phonorecords IV*)

Docket No. 21-CRB-0001-PR
(2023-2027)

DECLARATION OF CARLETTA HIGGINSON

I, Carletta Higginson, declare under penalty of perjury that the statements contained in my Written Direct Testimony in the above-captioned proceeding are true and correct to the best of my knowledge, information, and belief.

Executed this th13 day October 2021 in New York, New York.


Carletta Higginson

TAB B

**Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
LIBRARY OF CONGRESS
Washington, D.C.**

In the Matter of:

**DETERMINATION OF ROYALTY RATES
AND TERMS FOR MAKING AND
DISTRIBUTING PHONORECORDS
(*Phonorecords IV*)**

**Docket No. 21-CRB-0001-PR
(2023-2027)**

**WRITTEN DIRECT TESTIMONY OF DR. GREGORY K. LEONARD
(On Behalf of Google LLC)**

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I. QUALIFICATIONS AND ASSIGNMENT

1. I am an economist and Vice President at Charles River Associates (CRA), 601 12th Street, Suite 1500, Oakland, CA, 94607. I received a Bachelor of Science degree in Applied Mathematics-Economics from Brown University in 1985 and a Ph.D. in Economics from the Massachusetts Institute of Technology in 1989.

2. My specialties within economics are applied microeconomics, which is the study of the behavior of consumers and firms, and econometrics, which is the application of statistical methods to economics data. I have published over sixty papers in scholarly and professional journals. My publications are listed on my curriculum vitae, attached as Appendix A. A number of these papers address issues in industrial organization, demand for products, intellectual property and the calculation of damages in patent infringement litigation, and econometrics, including publications in the *Journal of Industrial Economics*, the *RAND Journal of Economics*, the *Journal of Econometrics*, the *Berkeley Journal of Technology and Law*, and *les Nouvelles*.

3. I am the Vice Chair for Economics of the editorial board of the *Antitrust Law Journal* and have served as a referee for numerous economics and other professional journals. I have given invited lectures on intellectual property and antitrust issues at the Federal Trade Commission (FTC), the United States Department of Justice (DOJ), the Directorate General for Competition of the European Commission, the Fair Trade Commission of Japan, and China's Supreme People's Court and Ministry of Commerce.

4. In 2009, I was invited to speak at a session of the FTC's hearings on the "Evolving IP Marketplace" concerning the calculation of patent damages. In the report that the

FTC subsequently issued, my views on damages calculation were cited extensively.¹ In 2007, I served as a consultant to and testified before the Antitrust Modernization Commission, which was tasked by Congress and the President of the United States to make recommendations for revising U.S. antitrust laws. In its *Uniloc* decision, the U.S. Court of Appeals for the Federal Circuit cited one of my publications in support of its conclusion that a method of calculating reasonable royalty damages in a patent case (the so-called “25% Rule”) is an unreliable and flawed methodology.² In its *Google LLC v. Oracle America, Inc.* decision, the U.S. Supreme Court cited my testimony in support of its decision.³

5. I have served as an expert witness in a number of litigation matters before U.S. District Courts, the (U.S.) International Trade Commission, state courts, arbitration panels, and the Copyright Royalty Board. In particular, I testified in the *Phonorecords III* and *Web V* proceedings. A list of cases in which I have testified (in deposition or at trial) in the last four years is provided in my curriculum vitae, attached as Appendix A to this declaration.

6. I have extensive experience analyzing “willing buyer/willing seller” (“WBWS”) negotiations. In patent infringement litigation, the so-called *Georgia Pacific* factors call for an analysis of the likely outcome of a hypothetical negotiation between the patent owner as a willing licensor and the alleged infringer as a willing licensee, *i.e.*, a WBWS transaction.⁴ As noted above, I have served as a damages expert in numerous patent infringement litigation matters and in many of those have analyzed a hypothetical negotiation. In addition, I have

¹ Federal Trade Commission, *The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition*, March 2011.

² *Uniloc USA, Inc. v. Microsoft Corp.*, Nos. 2010-1035, 2010-1055, 2011 WL 9738 (Fed. Cir. Jan. 4, 2011).

³ *Google LLC v. Oracle America, Inc.*, 593 U.S. ____ (2021), p. 32.

⁴ *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970).

advised parties involved in actual patent and trademark licensing negotiations as to the position they should take as a willing licensor or licensee.

7. My hourly rate for this matter is \$1050. My fee is not contingent on the outcome of this proceeding.

8. It is my understanding that the Copyright Royalty Judges (“CRJs” or “Judges”) of the Copyright Royalty Board (“CRB”) have commenced this proceeding to set the rates and terms of the 17 U.S.C. § 115 (“Section 115”) compulsory license for making and distributing phonorecords of nondramatic musical works for personal use for the period from January 1, 2023 through December 31, 2027. I understand that the Judges received requests to participate in this proceeding from Amazon Digital Services, Inc. (“Amazon”); Apple Inc. (“Apple”); Brian Zisk; David Powell; George Johnson; Google LLC (“Google”); National Music Publishers’ Association (“NMPA”); Nashville Songwriters Association International (“NSAI”); Pandora Media, LLC (“Pandora”); Sony Music Entertainment (“SME”); SoundCloud Operations Inc. (“SoundCloud”);⁵ Spotify USA Inc. (“Spotify”); UMG Recordings, Inc. (“UMG”); and Warner Music Group Corp (“WMG”).

9. I note that SME, UMG, and WMG have entered into a settlement agreement with the participating Copyright Owners covering the rates and terms for 37 C.F.R. § 385 (“Section 385”), Subpart B, and have submitted that proposed settlement to the CRJs. My understanding is that SME, UMG, and WMG will not participate in this proceeding if their proposed settlement for Subpart B is adopted. I understand that several other participants have also withdrawn from the proceeding. Amazon, Apple, Brian Zisk, David Powell, George Johnson, Google, NSAI, NMPA, Pandora, and Spotify remain as participants.

⁵ I understand that SoundCloud subsequently withdrew its petition to participate.

10. Google has asked me to review the relevant economic evidence in this matter and to provide my opinions on the appropriate rates and terms for the Section 115 license for the period from January 1, 2023 through December 31, 2027.⁶ My opinions regarding the appropriate rate and terms have been undertaken in accordance with the WBWS standard.⁷

11. My analysis, opinions, and this statement are based on information currently available to me. I reserve the right to amend, supplement, or update my analysis and opinions in response to other submissions in this case and based on new information that was not available to me at the time I finalized this statement, such as information obtained during discovery. The information I have considered in forming my opinions for this statement is noted throughout the statement and includes the materials listed in Appendix B.

II. SUMMARY OF OPINIONS

12. I have reached the following opinions:

- The change to the WBWS standard for *Phonorecords IV* does not necessarily mean that the rates and terms for the Section 115 compulsory license should change in either direction. In fact, marketplace evidence, including [REDACTED], support the conclusion that the rates should not increase.
- Google's proposal that the Section 115 royalty rates for the *Phonorecords IV* period remain at the 2022 level, as finally determined in the *Phonorecords III* proceeding, is reasonable.

○ [REDACTED]

That is, in a WBWS negotiation concerning activity that is not subject to regulation, but is

⁶ I understand that Google has captioned its pleadings in this proceeding using the period 2023 - 2027 to follow the period identified by the Copyright Royalty Judges. However, I further understand that Google believes the rates in this proceeding should be established for whatever the period is determined to be as required under 17 U.S.C. § 803(d)(2)(B).

⁷ 17 U.S.C. § 115(c)(1)(F).

comparable to Section 115 eligible activity, the parties [REDACTED]

- The proposed settlement between labels and publishers regarding the royalty rate for permanent digital downloads (“PDDs”) maintained the same 9.1 cent per PDD royalty for the *Phonorecords IV* period that prevailed during the *Phonorecords III* period. This settlement is a useful economic benchmark for Section 115 eligible activity in two respects. First, the maintenance of the same rate structure for PDDs in moving from the *Phonorecords III* period to the *Phonorecords IV* period supports Google’s proposal that the rates for Section 115 eligible content in the *Phonorecords IV* period should likewise be maintained at the *Phonorecords III* 2022 levels (as ultimately determined). Second, the agreed-upon PDD royalty rate for the *Phonorecords IV* period, which is 8.6% as a percentage of revenue, provides an appropriate benchmark for the Section 115 royalty rate.
- Google’s proposal to allocate a portion of subscription revenue to Section 115 eligible content (which is only one of a number of content categories available to subscribers on a service such as YouTube) before application of the royalty rate is reasonable.
 - [REDACTED]
 - Allocation of subscription revenue makes economic sense. All else equal, a subscriber’s willingness to pay for a service increases with the variety of content that the service makes available to the subscriber. Thus, a service that offers multiple types of content likely would earn less subscription revenue if it stopped offering the non-Section 115 eligible activities. Second, [REDACTED]
[REDACTED] Calculating Section 115 royalties on the entirety of the subscription revenue would therefore amount to paying twice for the same music content.
- Google’s proposal to limit the revenues of an advertising-supported service to those revenues associated with advertisements displayed on Section 115 eligible content is reasonable. This limitation [REDACTED]

[REDACTED] Moreover, it makes economic sense, as Section 115 eligible content should not be given credit for generating views of advertisements that appear on other types of content.

- Google’s proposal to adopt other terms f [REDACTED]
[REDACTED] is similarly reasonable.

III. GOOGLE’S PROPOSAL

13. Google has proposed that the rates for the Section 115 compulsory license for the *Phonorecords IV* period remain unchanged from those that are finally determined in the *Phonorecords III* proceeding for 2022.

14. Google has also proposed that many of the terms in Google’s deals with music publishers be adopted for the Section 115 compulsory license.

IV. STATUTORY AND MARKETPLACE CHANGES SINCE *PHONORECORDS III*

15. Several statutory and marketplace changes have occurred since *Phonorecords III* that are relevant to the determination of rates and terms in the present proceeding.

A. Change to the Willing Buyer/Willing Seller Standard

1. The Meaning of “Willing Buyer/Willing Seller”

16. I understand that the standard for analyzing the appropriate rates and terms under the Section 115 license has changed from the 801(b)(1) factors that defined the framework up through the *Phonorecords III* proceeding to the WBWS framework under 17 U.S.C. § 115(c)(1)(F) for the *Phonorecords IV* proceeding.⁸

⁸ 115(c)(1)(F) also requires that the rates and terms determination consider how the service may promote or harm other royalty streams for the copyright owner and the relative roles of the service and the copyright owner.

17. Under a WBWS framework, the rates and terms should be set so as to reflect the outcome of a hypothetical negotiation between a willing buyer and a willing seller. I understand that, in the Section 115 context, “effective competition” should be assumed to prevail in this hypothetical transaction.⁹ That is, any undue market power that either the buyer or seller may have in the real world should be assumed not to affect the outcome of the hypothetical negotiation that guides the setting of the statutory rates and terms.

18. From the point of view of an economist, the first step in a WBWS analysis is to identify the “item” that would be sold by the seller to the buyer. In the Section 115 context, the item being sold is a license to reproduce and distribute musical compositions as embodied in sound recordings (also known as phonorecords) for the primary purpose of distributing phonorecords to the public for private use.¹⁰

19. The second step in a WBWS analysis is to identify the buyer and seller that would participate in the hypothetical transaction. In the Section 115 context, the buyer that I am focused on is an interactive music streaming service provider. I will refer to such providers as “DSPs” (digital service providers). The DSPs appearing as parties in this proceeding include Amazon, Apple, Google, Pandora, and Spotify. Even though Google offers video content in addition to audio-only content, it operates under the Section 115 statutory license for certain of its activities and, therefore, is also an appropriate buyer of interactive music streaming rights.

20. The seller in the hypothetical transaction is a music publisher. Publishers contract with songwriters and other owners of copyrights of musical compositions to provide various services, including serving as an agent in licensing negotiations regarding mechanical rights. I

⁹ *In re* Determination of Rates and Terms for Digital Performance of Sound Recordings and Making of Ephemeral Copies to Facilitate Those Performances (Web V), Docket No. 19-CRB-0005-WR, Initial Determination, p. 6.

¹⁰ 17 U.S.C. § 115(a)(1)(A).

understand that publishers may provide advances to songwriters and that publishers license the use and exploitation of musical works to third parties, collect and distribute royalties, audit licensees, and, where necessary, bring lawsuits to enforce rights where the publisher is the owner or exclusive licensee of the copyright in the musical work alleged to be infringed.

21. I assume that the hypothetical licensing transaction would take place on the eve of the term for which the CRJs are establishing royalty rates (approximately December 31, 2022), although my opinions do not depend on the exact date.

2. Approaches to Analyzing Statutory Rates and Terms Under the WBWS Standard

22. Conceptually, assuming the parties are economically rational, the outcome of a WBWS transaction must make both parties better off than they would be without the transaction—this is what economists mean by “willing.”¹¹ Often, there is more than one outcome that would satisfy this condition. Indeed, there are often a range of potential outcomes that would be acceptable to both parties—economists call this the “bargaining range.”¹² With regard to the rate, the floor for the bargaining range is the lowest rate that the seller would be willing to accept. The ceiling of the bargaining range is the highest rate that the buyer would be

¹¹ If there are potential gains to trade, there are necessarily terms under which a transaction would make both buyer and seller better off than they would be without the transaction. That is, the transaction represents a Pareto improvement. I understand that the Section 115 license is “compulsory” in that a copyright owner cannot refuse to license an entity that complies with the terms of the license. In a real-world negotiation with no regulatory constraint, either party may “walk away” from the negotiation. However, permanently walking away from a negotiation, i.e., being “unwilling,” is rational for a party only if it perceives that there is no path towards reaching a mutually beneficial agreement. In my opinion as an economist, it is reasonable to presume that a mutually beneficial agreement between the copyright owners and the service providers exists. The copyright owners are not able to offer interactive streaming services on their own (at least without incurring substantial costs), and the service providers are not able to offer music streams without a license from the copyright owners. In that case, a mutually beneficial deal exists, and both sets of parties would be “willing” to reach an agreement even in the absence of the regulatory constraint. Consequently, the compulsory aspect of the Section 115 license does not have an impact on my analysis of the appropriate rates and terms.

¹² See, e.g., G. Leonard and L. Stiroh, “A Practical Guide to Damages,” in *Economic Approaches to Intellectual Property: Policy, Litigation, and Management* (2005), pp. 52-60.

willing to pay. Any rate between the floor and ceiling would, by definition, be acceptable to both parties, assuming economic rationality. Where within the bargaining range the parties would end up would depend on their relative bargaining strength.

23. One approach to analyzing the outcome of a hypothetical transaction is to operationalize this conceptual approach by quantifying the floor and ceiling of the bargaining range and then assessing the parties' relative bargaining strength to determine where in the bargaining range the hypothetical transaction would have ended up.¹³ For example, in the context of a music publisher-DSP negotiation, the publisher's floor for the rate would be expected to be equal to the publisher's opportunity cost from licensing the DSP to the musical works it controls. This opportunity cost would depend on the extent to which the DSP, if licensed, would draw music listeners away from other royalty-bearing services and thereby cause a decrease in the royalties the publisher collected from those other services. The DSP's ceiling for the rate would depend on the incremental profits it would expect to earn if it were to have a license to the musical works controlled by the publisher.

24. In practice, this "direct" approach to analyzing the hypothetical transaction can be difficult to operationalize reliably given the informational requirements. For example, determining the incremental profits a DSP may gain from a license to a given copyright owner's works can be difficult to determine. Data addressing that question directly may not be available without the DSP running an "experiment" where it drops certain musical works from its service.

25. An alternative approach to analyzing the rates and terms under the WBWS standard is to identify "benchmarks," which are real world transactions that are economically

¹³ G. Leonard and L. Stiroh, "A Practical Guide to Damages," in *Economic Approaches to Intellectual Property: Policy, Litigation, and Management* (2005), pp. 52-60; see also, e.g., J. Sutton, "Non-Cooperative Bargaining Theory: An Introduction," *Review of Economic Studies* (1986), pp. 709-724.

comparable to the hypothetical transaction, or to which adjustments can be made to create sufficient comparability. Assuming such a benchmark can be identified, it can cut through many of the difficult issues posed by the “direct” approach to analyzing the outcome of the hypothetical negotiation. For example, a valid benchmark necessarily accounts for marketplace complexities that might be difficult to accurately assess and model in the “direct” approach. For this reason, the use of comparable transactions (or licenses) by economists and financial analysts is common in many settings, including the housing market (a home is frequently valued using the prices at which similar homes were sold), securities markets (a security that either is not actively traded or may be “mispriced” is valued using the prices of similar securities or portfolios of securities), mergers and acquisitions (a company being acquired is valued using financial multiples or sales of similar companies), and intellectual property licensing (the royalty for a patent license is determined using the royalties in comparable licenses).¹⁴ As noted below, I have concluded that, given that sound benchmarks are available in this case, they should form the basis for the determination of the Section 115 rates and terms.

3. Implications of the Shift From the 801(b)(1) Factors to the WBWS Standard

26. Up through the *Phonorecords III* proceeding, the CRB was to set rates and terms for activities subject to licensing pursuant to 17 U.S.C. § 115 in accordance with the Section 801(b)(1) factors, which were as follows:

(A) To maximize the availability of creative works to the public.

¹⁴ See, e.g., D. Babbel, et al., “The Effect of Transaction Size on Off-the-Run Treasury Prices,” *Journal of Financial and Quantitative Analysis* (2004), 39, pp. 595-611 (securities); D. Harrison, et al., “Environmental Determinants of Housing Prices: The Impact of Flood Zone Status,” *Journal of Real Estate Research* (2001), 21, pp. 1-2, 3-20 (housing); R. Brealey, et al., *Principles of Corporate Finance* (2020, 13th Ed.), pp. 81-82 (acquisitions); S. Graham, et al., “Final Report of the Berkeley Center for Law & Technology Patent Damages Workshop,” *Texas Intellectual Property Law Journal* (2017-2018), 25, pp. 115-142 (patent licensing).

(B) To afford the copyright owner a fair return for his creative work and the copyright user a fair income under existing economic conditions.

(C) To reflect the relative roles of the copyright owner and the copyright user in the product made available to the public with respect to relative creative contribution, technological contribution, capital investment, cost, risk and contribution to the opening of new markets for creative expression and media for their communication.

(D) To minimize any disruptive impact on the structure of the industries involved and on generally prevailing industry practices.¹⁵

27. Holding all else equal, the shift to the WBWS standard does not necessarily require a change in the statutory rate in either direction. This is because many of the conditions identified in the Section 801(b)(1) factors are achieved by a WBWS outcome under effective competition. For example, “maximizing the availability of creative works to the public,” which can be interpreted as having the economically efficient amount of works available to the public, will be achieved by an effectively competitive WBWS outcome.¹⁶ A “fair return” to the copyright owner and a “fair income” to the copyright user can be interpreted as a “fair market value,” which again will be achieved by an effectively competitive WBWS outcome.¹⁷ An effectively competitive WBWS outcome will also generally reflect the relative contributions of the copyright owner and copyright user because those contributions determine the floor and ceiling for the bargaining range for the WBWS transaction.

28. The publishers may argue that rates should increase with the shift to the WBWS standard (all else equal). Presumably, the basis for this argument would be that the “fairness”

¹⁵ 17 U.S.C. § 801(b)(1).

¹⁶ That is, an effectively competitive outcome will reflect the economically efficient allocation of resources (perhaps in a second-best sense).

¹⁷ Note that, if one of the parties has market power, a WBWS agreement between them may diverge from the rate that would be set under the Section 801(b)(1) factors because of the market power.

language in the Section 801(b)(1) factors has resulted in statutory rates set in the prior proceedings that are suppressed relative to a WBWS outcome.

29. However, the real-world marketplace evidence strongly suggests that the shift to the WBWS standard should not affect the statutory rates and terms substantially, if at all. Recently, the publishers and labels reached a voluntary settlement (i.e., a real world WBWS transaction) regarding the mechanical royalty for PDDs, CDs, and vinyl records, which are covered by Part 385, Subpart B.¹⁸ The parties agreed to maintain the mechanical royalty for the next license period at the same level as that for the current license period, which had also been the result of a voluntary settlement.¹⁹ Had a settlement not been reached for the previous license period, the CRB would have set a rate using the Section 801(b)(1) factors. Had a settlement not been reached for the next license period, the CRB would have set a rate using the WBWS standard. Yet, the two settlements reached the same rate despite the change in standard.

30. Moreover, as also discussed in greater detail below, Google has negotiated voluntary agreements with publishers in which the parties have [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

¹⁸ For the digital download category, there is only a mechanical right, and no performance right, for a musical composition. However, because the mechanical and performance rights are perfect complements in the case of interactive streaming, the combined mechanical and performance rights are the equivalent to the mechanical right in the case of digital downloads.

¹⁹ The agreed upon rate is 9.1 cents per song for 1.75 cents per minute of playing time or fraction thereof, whichever amount is larger. 37 C.F.R. § 385.1(a).

[REDACTED]

[REDACTED]

31. Given this real-world evidence, I conclude that the shift from the Section 801(b)(1) factors to the WBWS standard by itself should not result in any substantial change for the statutorily-set rate for the service providers in this proceeding.

B. Music Modernization Act

32. Among other things, the Music Modernization Act (“MMA”) created The Mechanical Licensing Collective (“MLC”), a non-profit that will administer the statutory license through the collection and distribution of royalties paid by DSPs and assume the obligation to pay out royalties for covered activities.

The MLC will receive notices and reports from digital music providers, collect and distribute royalties, and identify musical works and their owners for payment. It will establish and maintain a publicly accessible database containing information relating to musical works (and shares of such works) and, to the extent known, the identity and location of the copyright owners of such works and the sound recordings in which the musical works are embodied.²⁰

33. The MLC will be funded by the service providers.²¹ Because the MLC will perform functions that had previously been performed by the publishers, but the MLC’s funding will come from the service providers, the relative roles of the service providers and publishers have changed relative to what they were prior to *Phonorecords III*, with the service providers now bearing more costs of license administration. For the 2021 budget, the service providers provided \$62 million to the MLC – \$33.5 million for start-up costs and \$28.5 million for an

²⁰ <https://www.copyright.gov/music-modernization/faq.html>.

²¹ <https://www.copyright.gov/music-modernization/faq.html>.

initial annual assessment for 2021.²² These payments by service providers to the MLC are a significant benefit to publishers who no longer have to incur expenses to undertake the functions now provided by the MLC.

34. All else equal, this change in roles would lead to lower rates in a WBWS transaction. Because the costs to the publishers have decreased and the costs to the services have increased, the WBWS-negotiated royalty would decrease. It is important to note that Google is proposing to maintain statutory rate levels at those finally determined for 2022 even though this economic factor would warrant a decrease in the statutory rates to reflect this change to the cost structures of the participants.

C. The Trend in the Marketplace Toward Services That Offer Multiple Types of Content, Only Some of Which Are Subject to Section 115

35. In December 2020, Google deprecated Google Play Music, and currently Google’s music service offerings are all provided within YouTube: YouTube.com, YouTube Music (“YTM”), YouTube Music Premium, (“YTMP”), and YouTube Premium (“YTP”).²³

36. YouTube.com is a free, ad-supported “video streaming service with videos that may include music.”²⁴ YTM is a free, ad-supported “music streaming service that operates using the YouTube video streaming service’s infrastructure. YTM offers consumers a music-forward version of YouTube, focusing on commercially released sound recordings in the form of individual tracks, albums, and playlists, via both a mobile application and via desktop. YTM also offers consumers access to audiovisual works, including label-produced music videos, user-

²² <https://themlc.com/perspectives/grammycom-mechanical-licensing-collective-officially-launches>; <https://themlc.com/press/mechanical-licensing-collective-digital-licensee-coordinator-announce-landmark-agreement>.

²³ Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶ 11.

²⁴ Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶ 12.

created videos, and artist interviews.”²⁵ Google internally refers to YouTube.com and YTM as Ad-supported Video-on-Demand services, or “AVOD” services.²⁶

37. YTMP is an ad-free, subscription version of YTM that is available for \$9.99 per month for an individual subscription, \$4.99 per month for a student subscription, and \$14.99 per month for a family subscription. YTMP is referred to internally at Google as a Subscription Video-on-Demand service, or “SVOD” service, and includes additional functionality beyond what is available to YTM users, including background play, “meaning a subscriber can close the YTM app and still listen to music,” offline listening, which “mean[s] a user can download music to their mobile phone and listen while not having an active Internet connection (*e.g.*, when in airplane mode),” and audio-only mode listening, which “mean[s] the consumer does not need to watch an audiovisual work in order to listen to music while the app is open.”²⁷

38. YTP is an SVOD service that provides advertisement-free access to the array of videos available on YouTube, which may or may not include music. It allows for the “downloading of videos (with and without music) and playlists for offline consumption, and permits listening in background mode or while one is using other apps.”²⁸ A subscriber to YTP also has access to YTMP. YTP is available for \$11.99 per month for an individual subscription, \$6.99 per month for a student subscription, and \$17.99 per month for a family subscription.²⁹ Google does not offer a subscription version of YouTube that does not also include a YTM subscription.³⁰

²⁵ Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶ 13.

²⁶ Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶¶ 12-13.

²⁷ Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶ 14.

²⁸ Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶ 15.

²⁹ Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶ 15.

³⁰ At first blush, it may seem appropriate to apportion \$9.99 of the YTP \$11.99 subscription price to the YTM subscription that is included with YTP, given that a standalone YTM subscription is available for \$9.99.

39. The trend toward services that offer multiple types of content to their subscribers makes economic sense. By broadening its content offerings, a service provider can exploit economies of scope, using the same platform to deliver a variety of content. Moreover, a service provider can differentiate itself from other service providers through offering different types of content. Users, on the other hand, can benefit from the “one-stop shopping” offered by a multi-content service. The phenomenon of adding diverse features to a product over time is common in high tech industries, such as with smartphones, for which included functionalities have expanded rapidly since they were first introduced.

40. There is a distinction between a service like YouTube that offers multiple types of content and a “bundle” consisting of a Section 115 music-only service and one or more other products or services that are sold together for a single price.³¹ The component products and services of such a bundle are often also sold on a standalone basis. Thus, the revenue attributable to the music-only service in the bundle can be determined by, for example, discounting the standalone price of the service by the bundle discount (the percentage by which the price of the bundle is less than the sum of the standalone prices of the components of the bundle). In contrast, there is no standalone price for the music content constituting Section 115 covered activity in a service offering multiple types of content, such as YouTube’s offerings described above. As noted, in return for the subscription fee, a YTP subscriber is able to access

However, such an apportionment would be correct only if a standalone YouTube subscription (without YTM) was priced at \$2.00. However, because Google does not offer a standalone YouTube subscription (without YTM), the price for such a subscription is not observable and thus the validity of a \$9.99 apportionment to YTM cannot be determined. Suppose, for example, that such a standalone YouTube subscription did exist and was priced at \$9.99. In that case, the appropriate apportionment to YTM would be only $\$9.99/(\$9.99 + \$9.99)*\11.99 , or \$6.00, rather than \$9.99. Notably, subscribers to YTP may have a lower willingness to pay for music than subscribers to the standalone YTM because they are subscribing to YTP, at least in part, to obtain advertisement-free access to non-music content.

³¹ The example given in the statute is a bundle consisting of a music streaming service and a smartphone. The smartphone and the service are typically also sold separately on a standalone basis.

all of the music, audiovisual, and video content YouTube offers, only some of which may be Covered Activity under Section 115. Similarly, a YTMP subscriber is able to access content that may be licensable under Section 115 and some of which may not. Thus, it would be inappropriate to apply a Section 115 all-in rate to the full subscription price of an offering that includes certain content that cannot be licensed under Section 115. A user's interest in this type of service in general increases with the amount and variety of content that the service offers. More specifically, the user's willingness to pay for a subscription to the service will be higher, in general, given a wider variety of content the user can access on the service. Accordingly, the subscription price for a service that offers a particular set of content will tend to be higher than the subscription price for an otherwise identical service that offers only a subset of the content offered by the first service. Consistent with this economic concept, YTM has a subscription price (\$9.99) that is lower than that of YTP (\$11.99), which includes YTM plus additional content. The royalty rate for a single type of use, *e.g.*, Section 115 covered activity, should be applied to only a portion of the full subscription price for a service offering multiple types of content.

41. Moreover, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

If the royalty rate established by the CRB under Section 115 were applied to the full subscription price, Google effectively would be paying twice for the same content. For example, subscribers' willingness to pay for YTMP, and thus the YTMP subscription price Google is able to charge, is due in part to users' ability to watch official music videos. If the Section 115 royalty rate were

applied to the full YTMP subscription price, Google would be paying the Section 115 royalty on a portion of the subscription price that in fact was attributable to official music videos. Yet,

[REDACTED]

[REDACTED]

[REDACTED]

42. As discussed below in detail, the voluntary licenses Google negotiated with music publishers [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

V. GOOGLE’S LICENSES WITH MUSIC PUBLISHERS

43. Google has entered into [REDACTED] Publishing License Agreements (“PLAs”) with music publishers. In Appendices C1, C2, and C3, I have summarized the pertinent terms and conditions—including the term, rights granted, and royalties payable for certain content, including [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Google’s currently-in-effect negotiated PLAs, which are direct deals that Google has signed with [REDACTED] that I understand are [REDACTED] [REDACTED]; and Google’s currently-in-effect PLAs [REDACTED]

[REDACTED]

[REDACTED]³² I will refer to the agreements summarized in Appendices C1, C2, and C3 as the “Google Agreements” or the “Google PLAs.”

44. Five categories of content with music [REDACTED]

[REDACTED]

45. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]³⁵

46. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

³² I understand that Google has [REDACTED]

³³ [REDACTED] See Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶ 29.

³⁴ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED] Publishing License Agreement, § 1.1.

³⁵ Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶ 17.

³⁶ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED] Publishing License Agreement, § 1.1.

[REDACTED]

[REDACTED]³⁷

47. [REDACTED]

[REDACTED]³⁸

48. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]⁴⁰

49. [REDACTED]

[REDACTED]⁴¹

50. In addition to these five types of content (all of which involve music), YouTube offers videos without any music content, such as “cat videos.”⁴² [REDACTED]

[REDACTED]

³⁷ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], § 1.1.

³⁸ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], § 1.1.

³⁹ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], § 1.1.

⁴⁰ Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶ 18.

⁴¹ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], § 1.1.

⁴² Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶ 22.

[REDACTED]

[REDACTED]⁴³

51. I understand that [REDACTED] are not defined in terms of Section 115-eligible phonorecords but in terms of [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

52. For purposes of calculating royalties for the various types of content, the Google

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]⁴⁴

53. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

⁴³ Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶ 20.

⁴⁴ [REDACTED] However, in practice, the YouTube subscription services are provided advertisement-free. Thus, for the purposes of clarity, I do not further discuss advertising revenue generated from subscription services.

⁴⁵ [REDACTED] Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED] § 1.1.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

⁴⁶ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Exhibit A, §§ 5(a), 5(c).

[REDACTED]

[REDACTED] Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED] Exhibit A, §§ 5(c)-5(d).

⁴⁷ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED] §§ 5(b), 5(c).

[REDACTED]

[REDACTED] Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED] Exhibit A, §§ 5(c)-5(d).

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]⁴⁸

55. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]⁵⁰

56. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

⁴⁸ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED] Exhibit A, § 6.

⁴⁹ However, [REDACTED] Section 115-eligible content. This is evidence that the parties were engaged in an unconstrained negotiation.

⁵⁰ Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶ 25.

54

58. The same allocation methodology is used [REDACTED]

A horizontal bar chart titled 'Percentage of respondents who believe the U.S. should take action to address climate change, broken down by age group'. The y-axis lists age groups: 18-29, 30-49, 50-64, 65+, and Overall. The x-axis represents the percentage, ranging from 0 to 100. The bars are black. The data is as follows:

Age Group	Percentage
18-29	59
30-49	58
50-64	56
65+	57
Overall	55

60. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

⁵⁵ Appendices C1, C2, and D.

62. In summary, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

60

Furthermore, in determining the royalty for [REDACTED], Google

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

VI. TERMS FOR THE SECTION 115 LICENSE FOR THE *PHONORECORDS IV* PERIOD

64. In this section, I consider the appropriate terms for the Section 115 license for the *Phonorecords IV* period given the WBWS standard, in particular the structure of the royalty calculation. In my opinion, the PLAs that Google has entered into with publishers discussed in the preceding section provide the best evidence as to what a WBWS outcome would be for the terms contained in a Section 115 license. This is for two reasons. First, the current Section 115 regulations [REDACTED]

[REDACTED] Second, as noted above, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] these terms were the

⁶⁰ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], § 1.1.

⁶¹ Google Ex. 06 (GOOG-PHONOIV-00002944-66), [REDACTED], Exhibit A, §§ 5(a)-5(b).

outcome of a WBWS negotiation. Yet, from the perspective of the user, these [REDACTED]

[REDACTED]

[REDACTED]

excellent benchmark against which to evaluate a WBWS outcome for Section 115-eligible streams.

A. All-In Rate

65. As noted above, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Thus, in my opinion, the Section 115 license for the *Phonorecords IV* period should similarly specify an all-in royalty rate. Relatedly, the Section 115 license should specify that mechanical royalties be calculated after deducting performance royalties from the all-in rate, [REDACTED]

[REDACTED]

66. [REDACTED] an all-in rate makes economic sense. Given that the performance and mechanical rights are perfect complements deriving from the same musical work, it is economically efficient to specify a single rate that covers both rights.⁶² Specifically, it avoids the “Cournot complements problem” whereby each licensor of two complementary rights does not take into account the negative effect an increase in its royalty rate has on the other licensor. As a result, the combined royalties

⁶² See *Determination of Royalty Rates and Terms for Making and Distributing Phonorecords (Phono III)*, Final Rule, 84 Fed. Reg. 1918, 1934, 1997 (Feb. 5, 2019).

for the two rights may be inefficiently higher than the royalty a single entity that controlled both rights would have charged. That is, both the licensors and licensees would be better off with a single entity setting an “all-in” rate than with the two licensors separately negotiating their own rates.

B. Percentage of Revenue Royalty Rate

67. [REDACTED]

Thus, in my opinion, the Section 115 license should similarly specify the all-in royalty rate in percentage of revenue terms (both for subscription and advertising revenues).

68. A percentage of revenue royalty also has important economic advantages for both parties. First, it provides an adjustment to the royalty for a service offering depending on the willingness-to-pay (“WTP”) of the consumer segment that the offering is targeting. Thus, for example, a service provider may be able to profitably increase its revenues (which benefits publishers) by offering a menu of plans targeted to users with different WTP. This strategy may not be economically viable for the service provider with a per-play royalty structure in which the royalty is the same regardless of the plan price. Second, for subscription services, because the percentage of revenue structure amounts to a per subscriber fee, it does not impose an incremental cost on a service provider or a user for a user’s incremental stream. This encourages greater usage, which in turn increases the attractiveness of the service to users, likely allowing an extraction of greater revenue (through the subscription fee) and ultimately greater royalties than

could be obtained if each user were charged an amount that was positively related to his or her usage.⁶³

69. Copyright owners may try to claim that a percentage of revenue royalty rate leaves them susceptible to “manipulation” of revenue by services, such as shifting of revenue to complementary non-music services. However, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Given this (and given the protection to musical works copyright owners afforded by the [REDACTED]

[REDACTED], any concern copyright owners express regarding manipulation should not be given any weight.

C. [REDACTED]

70. As discussed above, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] In my opinion, given that [REDACTED]

[REDACTED]

⁶³ This point is related to the idea that a two-part tariff (fixed fee plus a per unit fee equal to marginal cost) can maximize a supplier’s revenue.

[REDACTED]

[REDACTED]

71. As noted above, allocation of subscription revenue and the limitation of advertising revenue for such a service makes economic sense. Demand for the service, and thus the subscription revenue that is generated from users, is driven by the different types of content. It would not make economic sense to apply the royalty rate for a service with only Section 115-eligible music, where the subscription revenue is driven entirely by Section 115-eligible music, to the entire subscription revenue for a service with multiple types of content, where only a portion of the subscription revenue is reasonably attributable to uses of music that are covered activities under Section 115. Doing this would result in significant overpayments to music publishers, effectively resulting in payments under the statutory license on revenue attributable to content that is outside the scope of that license. Rather, the Section 115 royalty rate should be applied only to the portion of subscription revenue assigned to Section 115 covered activities after an allocation of the subscription revenue among the different types of content has been performed (and similarly, the Section 115 royalty rate should be applied only to the portion of advertising revenue from the advertisements displayed or performed against Section 115 covered activities). [REDACTED]

[REDACTED]

[REDACTED] The Section 115 license should include precise language laying out this methodology. Similarly, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Again, the Section 115 license should include precise language describing this methodology.

D. Royalty Floor

72. [REDACTED]

[REDACTED]

[REDACTED] A similar structure is also present in the *Phonorecords III* Initial Determination. First, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

73. [REDACTED]

[REDACTED]

[REDACTED] the Section 115 license should include these prongs as

well [REDACTED]

[REDACTED]

[REDACTED] This would result in a portion of the PSM being attributed to just activities undertaken pursuant to Section 115 and allowing the remainder to be allocated among non-Section 115 activities, including for content with or without music. At a minimum, the PSM should at least be allocated among Section 115-eligible uses and non-Section 115 eligible uses of music content.

74. With regards to [REDACTED]

[REDACTED]⁶⁴ Thus, the Section 115 license should [REDACTED] not provide for any floor on the all-in royalty for Section 115 content pertaining to the AVOD service. Publishers have [REDACTED]

[REDACTED]

[REDACTED] Given the relatively low marginal costs involved, the incentives for a publisher and a service provider are generally closely aligned--both would prefer more advertising revenue, all else equal, and both would seek to move AVOD users to SVOD services.

E. Exclusions from Revenue

75. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]⁶⁵

⁶⁴ Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶ 57.

⁶⁵ Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶¶ 65-66.

76. [REDACTED]

[REDACTED], and reflect the outcome of a WBWS negotiation.

77. The exclusions are economically reasonable, because they encompass items that are not properly characterized as revenue to the service provider when the service provider must then pay those amounts to a third party. Similar exclusions are commonly found in, for example, intellectual property licensing agreements.

F. Promotional Plans

78. [REDACTED]

[REDACTED]⁶⁶ Service providers use such plans as part of a business strategy to target consumers with a lower WTP for streaming. While such consumers may choose not to subscribe to the service at the “full” price, they may be willing to subscribe at the lower price associated with these promotional plans. Through such targeting, a service provider can increase its revenues, which benefits publishers as well. Promotional plans may also serve as an introductory offer from which a consumer may be motivated to transition to a “regular” higher priced plan. Again, this business strategy is designed to expand the service provider’s revenue, which in turn benefits publishers.

79. [REDACTED]

[REDACTED] Discounting the per subscriber minima makes economic sense: the purpose of offering a lower price for a promotional plan is to entice lower WTP consumers to subscribe. By definition, lower WTP consumers place a lower value on music. Accordingly, the publishers should receive a

⁶⁶ Written Direct Testimony of Carletta Higginson, October 13, 2021, ¶¶ 97-99.

commensurately lower royalty on such consumers. This is, of course, accomplished with a percentage of revenue royalty structure: the percentage royalty rate, when applied to the lower promotional plan price, yields a smaller dollar royalty than when applied to the higher regular plan price. The per subscriber minimum, which is expressed in dollar per subscriber terms, must similarly be lower for a promotional plan to reflect appropriately the lower value subscribers to such plans place on music. If the per subscriber minimum were not adjusted downward for promotional plans, it would be more likely to bind, which would decrease service providers' incentive to offer such plans. As noted above, in the absence of such plans, service provider revenues would be lower, a result that would harm publishers.

VII. THE ALL-IN RATE FOR THE SECTION 115 LICENSE

80. I have identified several useful benchmarks for determining the appropriate all-in rate for the Section 115 license.

A. [REDACTED]

81. As noted above, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

82. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] During the *Phonorecords II* period, the specified rate was 10.5%. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

B. 385 Subpart B as a Benchmark

83. Section 385 Subpart B provides for a compulsory license to a musical work used in a sound recording that is sold in the form of a PDD. While the royalty rate for this compulsory license would otherwise have been set in the present proceeding, the largest labels and largest publishers gave the CRB notice of a voluntary settlement on March 2, 2021 in which they agreed to maintain the same royalty terms that had been agreed upon by the same parties in an earlier voluntary settlement reached in 2016 prior to the *Phonorecords III* proceeding.⁶⁹ The agreed upon terms specify a royalty equal to the greater of 9.1 cents or 1.75 cents per minute of playing time per PDD. While I understand that certain smaller publishers have objected to the settlement as being contrary to their interests, [REDACTED]

[REDACTED]

[REDACTED]

⁶⁷ Appendix C1.

⁶⁸ See Appendix C1. I note that the [REDACTED]

⁶⁹ See Notice of Settlement in Principle, *Phonorecords IV*, Dkt. No. 21-CRB-0001-PR (2023-2027) (Mar. 2, 2021).

84. It is useful to calculate the PDD royalty as a percentage of the average price paid by a user for a PDD (i.e., revenue per PDD). In *Phonorecords III*, both Professor Marx and I calculated the effective royalty for a PDD; Professor Marx found the figure to be 9.6 cents per PDD, while, using somewhat different data, I found the figure to be 9.5 cents per PDD.⁷⁰ Given that the royalty structure has remained the same (e.g., 1.75 cents per minute, with a minimum of 9.1 cents per track) and that the distribution of lengths of digital download tracks is unlikely to have changed substantially since I last performed the calculation, it is reasonable to assume that the effective royalty for PDDs was still approximately 9.5 cents per PDD as of 2020.⁷¹ Dividing the 9.5 cents royalty per PDD by the average retail price per PDD derived from RIAA data, I find the PDD royalty rate as a percentage of revenue to be 8.6%.⁷²

85. The voluntary negotiation and settlement over the 385 Subpart B license is comparable to the hypothetical negotiation over the 386 Subpart C license in several respects. First, the licensors in the two cases are the same—publishers. Second, while not identical, the licensees in the two cases are economically similarly situated in certain important respects. Both the labels (in the case of 385 Subpart B) and the service providers (in the case of 385 Subpart C) are seeking a license to the musical work so that they can provide a sound recording embodying a performance of the musical work to end users. Third, PDDs and streaming are economically similar. A user who purchases a PDD “owns” it and can listen to it as often as desired without further charge. Despite not “owning” the track as a technical matter, the user of a streaming

⁷⁰ See *Determination of Royalty Rates and Terms for Making and Distributing Phonorecords (Phono III)*, Final Rule, 84 Fed. Reg. 1918, 1947 (Feb. 5, 2019).

⁷¹ I am not able to update my calculations of the effective PDD royalty rate to 2020 using Google data as I did in *Phonorecords III* because Google stopped selling PDDs during 2020.

⁷² I understand that, for PDDs, there is only a mechanical right (no performance right). As noted above, while for streaming there is both a mechanical right and a performance right, these two rights are perfect complements, and thus the appropriate royalty would be the same whether both rights existed or only one.

service nevertheless is situated similarly to the PDD purchaser in that, having paid the service subscription fee, the streaming user can listen to a track as often as desired without further charge. The comparability of the PDDs and music streaming services is further supported by the fact that PDDs and streaming are widely recognized as substitutes for users, with PDDs losing share over time to streaming.⁷³

86. The Section 385 Subpart B settlement is informative in two respects. First, the fact that the 2021 settlement maintains the existing royalty terms (in cents per PDD) from the 2016 settlement (which in turn maintained the royalty terms from *Phonorecords II*) suggests both that (1) market conditions have not significantly changed since *Phonorecords III* in a manner that would warrant a change in the royalties for musical works, and (2) no change in the royalties for musical works is precipitated by the statutory change from the Section 801(b)(1) factors to the WBWS standard.⁷⁴ The fact that the PDD royalty did not change over time suggests that the royalty terms for interactive streaming in the hypothetical WBWS transaction would not change significantly from what had been set in place in *Phonorecords II*.⁷⁵ Thus, the lack of change in Section 385 Subpart B royalties over time supports the conclusion that there should likewise be no change in the royalty rate for interactive streaming in Section 385 Subpart C.

⁷³ See Appendices F1 and F2; L. Aguiar and J. Waldfogel, “As Streaming Reaches Flood Stage, Does It Stimulate or Depress Music Sales?,” *International Journal of Industrial Organization* (2018), pp. 278-307.

⁷⁴ The PDD royalty as a percentage of PDD revenue has also remained approximately constant over time. Compared to the 8.6% rate for 2020, I calculated the PDD royalty as a percentage of revenue to be 8.7% in *Phonorecords III*. See *Determination of Royalty Rates and Terms for Making and Distributing Phonorecords (Phono III)*, Final Rule, 84 Fed. Reg. 1918, 1947 (Feb. 5, 2019).

⁷⁵ To the extent the Section 115 interactive streaming rates were increased by the Judges in *Phonorecords III* to enhance songwriter income under an application of the Section 801(b)(1) factors, under the WBWS standard that applies for the present proceeding, the rates should be decreased from the *Phonorecords III* rates.

87. The second way in which the Section 385 Subpart B settlement is informative is that the PDD royalty as a percentage of PDD revenue can be used directly as a benchmark for the Section 115 royalty rate as a percentage of revenue. As noted above, using recent data, the PDD royalty as a percentage of PDD revenue is 8.6%. This is lower than the all-in rate as specified in *Phonorecords III* pre-remand. Maintaining the all-in rate at a level above 8.6% therefore would be conservative.

88. While interactive streaming and PDDs are not identical, as noted above, they are sufficiently comparable in economic characteristics that PDDs are a sound benchmark for interactive streaming and thus corroborate the rates Google has proposed. At a minimum, the rates proposed by Google are consistent with the “zone of reasonableness”⁷⁶ suggested by the PDD settlement.

89. There are several responses to the criticism that there are “significant differences in access value between the purchase of a download or CD...and a subscription to...an interactive streaming service.”⁷⁷

90. First, copyright owners presented no evidence in the *Phonorecords III* proceeding that there actually exists a “significant difference in access value” between a PDD and an interactive streaming subscription.

91. Second, a “significant difference in access value” would invalidate the PDD benchmark only if the access value provided by a PDD was significantly greater than the access value provided by an interactive streaming subscription. That is, only if the price of the PDD

⁷⁶ See *Determination of Royalty Rates and Terms for Making and Distributing Phonorecords (Phono III)*, Final Rule, 84 Fed. Reg. 1918, 1947 (Feb. 5, 2019).

⁷⁷ See *Determination of Royalty Rates and Terms for Making and Distributing Phonorecords (Phono III)*, Final Rule, 84 Fed. Reg. 1918, 2013 (Feb. 5, 2019).

represented payment for some form of access that interactive streaming does not provide would the PDD percentage of revenue royalty rate understate the appropriate Section 115 percentage of revenue royalty. However, if anything, the opposite is true. Interactive streaming provides the user with “option value”—at the time of purchase of the subscription, the user need not specify the songs to which he or she will listen. Rather, the user has the option to access any song in the service provider’s catalogue during the subscription period. With a PDD, in contrast, at the time of purchase the user is explicitly choosing a song and is restricted to listen only to the particular song purchased. The user’s option value is inherent to the interactive streaming service, which in turn is the creation and contribution of the service provider, not the publishers. A WBWS negotiation would credit a service provider with this contribution.

92. Third, market outcomes demonstrate the significantly greater access value provided by interactive streaming services than by PDDs. It is widely acknowledged that streaming has renewed the fortunes of the music industry (including publishers).⁷⁸ This is borne out by RIAA data. In the early 2010s, when PDDs and CDs were the primary forms of music distribution, revenues from these forms of distribution had been on the decline for a number of years. Only with the growth of interactive streaming services did the downward trend in revenue reverse. As streaming services grew, the increase in revenues has been rapid, to the point where in 2020 they were well above where they had been in 2012 when streaming was in its infancy.⁷⁹ To a large degree, the revenue discrepancy between 2020 and 2012 reflects users’ “revealed preferences”; streaming provides more value to users than PDDs/CDs. As a result of the revenue growth, publishers are substantially better off earning 8.6% of streaming revenue than they

⁷⁸ “Music in the Air: Stairway to Heaven,” Goldman Sachs, October 4, 2016, pp. 1, 3, 37-38; *see also* Appendices F1 and F2.

⁷⁹ Appendices F1 and F2.

would have been earning 8.6% of PDDs/CDs in a world where streaming did not exist. Given that the revenue growth is due to the contributions of the service providers, the PDD rate is in fact a benchmark that is favorable to publishers.

93. In conclusion, in two different ways the Section 385 Subpart B settlement supports the conclusion that Google's proposal to maintain the royalty rates for musical works in interactive streaming in Section 385 Subpart C at the *Phonorecords III* levels for the *Phonorecords IV* period is reasonable.

VIII. CONCLUSIONS

94. For the reasons described above, I conclude that Google's proposal is reasonable and consistent with a WBWS negotiated outcome.

**Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
LIBRARY OF CONGRESS
Washington, D.C.**

In the Matter of:

**DETERMINATION OF ROYALTY RATES
AND TERMS FOR MAKING AND
DISTRIBUTING PHONORECORDS
(*Phonorecords IV*)**

**Docket No. 21-CRB-0001-PR
(2023-2027)**

DECLARATION OF GREGORY K. LEONARD

I, Gregory K. Leonard, declare under penalty of perjury that the statements contained in my Written Direct Testimony in the above-captioned proceeding are true and correct to the best of my knowledge, information, and belief.

Executed this 13th day of October, 2021 in San Francisco, California.



Gregory K. Leonard

APPENDIX A

Gregory K. Leonard
Vice President

PhD, Economics
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ScB, Applied Mathematics-Economics
Brown University

Dr. Gregory K. Leonard is a vice president in the Antitrust & Competition Economics Practice of CRA. He specializes in applied microeconomics and econometrics. He has provided testimony before US federal and state courts, government agencies, and arbitration panels on issues involving antitrust, damages estimation, statistics and econometrics, surveys, valuation, and labor market discrimination.

Dr. Leonard has written extensively in the areas of antitrust, industrial organization, econometrics, intellectual property, class certification, and labor economics. His publications have appeared in journals such as the *RAND Journal of Economics*, the *Journal of Industrial Economics*, the *Journal of Econometrics*, the *International Journal of Industrial Organization*, and the *Antitrust Law Journal*, among others. Dr. Leonard's writings were cited by the Court of Appeals for the Federal Circuit in its *Uniloc* decision. He is the Editorial Board Vice Chair for Economics of the *Antitrust Law Journal* and has served as a referee for numerous economic journals.

Dr. Leonard has given invited presentations on antitrust and intellectual property issues at the (US) Federal Trade Commission, the US Department of Justice, the former Anti-Monopoly Bureau of China's Ministry of Commerce, the Supreme People's Court of China, and Japan's Fair Trade Commission. He served as a consultant on the issue of immunities and exemptions to the (US) Antitrust Modernization Commission.

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Panelist, “China Inside and Out,” American Bar Association, Beijing, People’s Republic of China, September 16-17, 2013.

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Participant, Patent Damages Workshop, University of California-Berkeley, March 3, 2016.

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Professional activities

Member, American Economic Association

Member, Econometric Society

Member, American Bar Association

Contributor, www.antitrust.org

Contributor, ABA Section of Antitrust Law, *Econometrics*, 2005

Associate Editor, *Antitrust*, 2007-2010

Senior Editor, *Antitrust Law Journal*, 2012-; Associate Editor, 2010-2012

Co-Editor, ABA Section of Antitrust Law Economics Committee Newsletter, 2009-2012

Member, Economics Task Force, ABA Section of Antitrust Law, 2011-2012

Member, ABA Delegation to International Seminar on Anti-Monopoly Law: Procedure and Substantive Assessment in Merger Control, Beijing, People's Republic of China, December 15-17, 2008.

Member, Working Group for drafting the "Joint Comments of the American Bar Association Section of Antitrust Law and Section of International Law on the MOFCOM Draft Guidelines for Definition of Relevant Markets," 2009.

Member, Working Group for drafting the "Joint Comments of the American Bar Association Section of Antitrust Law and Section of International Law on the SAIC Draft Regulations on the Prohibition of Acts of Monopoly Agreements and of Abuse of Dominant Market Position," 2009.

Member, Working Group for drafting the "Joint Comments of the American Bar Association Section of Antitrust Law and Section of International Law on the SAIC Draft Regulations on the Prohibition of Acts of Monopoly Agreements and of Abuse of Dominant Market Position," 2010.

Referee: *Econometrica*, *Review of Economics and Statistics*, *International Journal of Industrial Organization*, *Review of Industrial Organization*, *Journal of Sports Economics*, *Journal of Environmental Economics and Management*, *Research in Law and Economics*, *Labour Economics*, *Eastern Economic Journal*, *Journal of Forensic Economics*, *Antitrust*, *Antitrust Law Journal*, *Journal of Competition Law and Economics*, *Advances in Econometrics*.

Professional history

12/2019–Present	<i>Vice President</i> , Charles River Associates
2012–2019	<i>Partner</i> , Edgeworth Economics
2008–2012	<i>Senior Vice President</i> , NERA Economic Consulting
2004–2008	<i>Vice President</i> , NERA Economic Consulting
2000–2004	<i>Senior Vice President</i> , Lexecon, Inc.
1991–2000	<i>Director</i> , Cambridge Economics, Inc.
1990–1991	<i>Senior Analyst</i> , NERA Economic Consulting
1989–1990	<i>Assistant Professor</i> , Columbia University
	<ul style="list-style-type: none"> • Econometrics • Statistics • Labor Economics

APPENDIX B

Appendix B

Documents Cited

Bates Documents

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APPENDIX C1

RESTRICTED—Subject to Protective Order in
Docket No. 21-CRB-0001-PR (2023-2027)
(Phonorecords IV)

APPENDIX C2

RESTRICTED—Subject to Protective Order in
Docket No. 21-CRB-0001-PR (2023-2027)
(Phonorecords IV)

APPENDIX C3

RESTRICTED—Subject to Protective Order in
Docket No. 21-CRB-0001-PR (2023-2027)
(Phonorecords IV)

APPENDIX D

RESTRICTED—Subject to Protective Order in
Docket No. 21-CRB-0001-PR (2023-2027)
(Phonorecords IV)

APPENDIX E

Appendix E

Subpart B Royalty Rate as a Percentage of the Price Per Song

2017-2020

	2017	2018	2019	2020
	[a]	[b]	[c]	[d]
<u>U.S. Sales of Digital Downloads</u>				
Singles				
Unit Shipments (millions)	544.8	399.3	329.7	257.2
Revenue (millions)	\$ 667.9	\$ 489.9	\$ 408.4	\$ 312.8
Price Per Song	\$ 1.23	\$ 1.23	\$ 1.24	\$ 1.22
Albums				
Unit Shipments	64.5	49.3	37.5	33.1
Revenue	\$ 649.7	\$ 495.3	\$ 368.8	\$ 319.5
Price Per Album	\$ 10.07	\$ 10.05	\$ 9.84	\$ 9.65
Songs Per Album ¹	10	10	10	10
Implied Price Per Song ²	\$ 1.01	\$ 1.00	\$ 0.98	\$ 0.97
Singles and Albums				
Price Per Song ³	\$ 1.11	\$ 1.10	\$ 1.10	\$ 1.08
<u>Subpart B Royalty Rate Per Song⁴</u>	\$ 0.095	\$ 0.095	\$ 0.095	\$ 0.095
<u>Subpart B Effective Royalty Rate Per Song⁵</u>				
Effective Subpart B Royalty Rate	8.6 %	8.6 %	8.6 %	8.8 %
Average Price Per Song⁶	\$ 1.10			
Effective Subpart B Royalty Rate	8.6 %			

- Notes: ¹ Based on the RIAA's assumption, one album contains 10 songs on average. See "About the Awards - RIAA."
- ² Implied Price Per Song in the Albums section is calculated as the Price Per Album divided by Songs Per Album.
- ³ Price Per Song in the Singles and Albums section is calculated as the weighted average price per song for singles and albums.
- ⁴ The Subpart B Royalty Rate Per Song is sourced from Phonorecords III determination. It is calculated by multiplying the effective percentage royalty rate of 9.6% by retail PDD price of \$0.99. See Determination of Royalty Rates and Terms for Making and Distributing Phonorecords (Phono III), Final Rule, 84 Fed. Reg. 1918, 1947 (Feb. 5, 2019).
- ⁵ The Subpart B Effective Royalty Rate Per Song is calculated as the Subpart B Royalty Rate Per Song divided by Price Per Song.
- ⁶ Average Price Per Song is calculated as the weighted average price per song over the 2017-2020 time period from the RIAA U.S. Sales Database.

Sources: "U.S. Sales Database," The Recording Industry Association of America, <https://www.riaa.com/u-s-sales-database/>. Last accessed October 11, 2021.

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APPENDIX F1

Appendix F1
Total Revenue and Shipments for the U.S. Music Industry

2005 - 2020

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	[a]	[b]	[c]	[d]	[e]	[f]	[g]	[h]	[i]	[j]	[k]	[l]	[m]	[n]	[o]	[p]
Revenue (\$M)																
CD	\$ 10,520.2	\$ 9,372.6	\$ 7,452.3	\$ 5,471.3	\$ 4,318.8	\$ 3,389.4	\$ 3,100.7	\$ 2,485.6	\$ 2,140.9	\$ 1,776.2	\$ 1,445.0	\$ 1,130.8	\$ 1,043.9	\$ 695.8	\$ 630.7	\$ 483.3
CD Single	10.9	7.7	12.2	3.5	3.1	2.9	3.5	3.2	2.4	3.6	1.2	0.3	0.2	0.0	0.1	0.4
Cassette	13.1	3.7	3.0	0.9	0.0	----	----	----	----	----	----	----	----	----	----	----
DVD Audio	11.2	2.4	2.8	1.2	1.6	0.9	0.3	0.2	-0.5	2.1	5.4	2.8	0.3	0.3	1.3	1.8
Download Album	135.7	275.9	497.4	635.3	744.3	872.4	1,070.8	1,204.8	1,232.1	1,117.9	1,064.4	868.6	649.7	495.3	368.8	319.5
Download Music Video	3.7	19.7	28.2	41.3	40.9	36.6	32.4	20.8	16.7	13.6	6.4	4.3	2.8	2.2	1.9	1.8
Download Single	363.3	580.6	811.0	1,032.2	1,172.0	1,336.4	1,522.4	1,644.6	1,573.4	1,355.3	1,185.2	900.2	667.9	489.9	408.4	312.8
Kiosk	1.0	1.9	2.6	2.6	6.3	6.4	2.7	3.7	6.2	2.6	3.7	2.9	2.3	2.0	1.6	1.2
LP/EP	14.2	15.7	22.9	56.7	63.8	88.9	119.4	160.7	210.7	243.8	333.4	355.4	388.5	419.2	479.5	619.6
Limited Tier Paid Subscription	----	----	----	----	----	----	----	----	----	----	0.0	257.3	568.8	740.5	638.2	723.6
Music Video (Physical)	602.2	451.1	484.9	227.3	209.6	177.6	151.0	116.6	106.3	89.7	70.4	56.9	37.5	28.4	25.8	27.4
On-Demand Streaming (Ad-Supported)	----	----	----	----	----	----	113.8	170.9	220.9	283.8	372.0	476.8	614.3	752.7	1,013.1	1,183.1
Other Ad-Supported Streaming	----	----	----	----	----	----	----	----	----	----	----	70.6	223.9	208.2	207.3	211.2
Other Digital	----	----	----	----	----	----	----	----	----	----	----	17.1	16.9	19.8	21.5	18.9
Paid Subscription	149.2	206.2	234.0	221.4	206.2	212.4	247.8	399.9	643.3	770.3	1,156.7	2,186.4	3,359.8	4,614.0	6,115.2	7,009.2
Ringtones & Ringbacks	421.6	773.8	1,055.8	977.1	702.8	448.0	276.2	146.0	98.0	66.3	54.6	56.3	35.5	25.0	20.6	20.2
SACD	10.0	5.5	3.6	3.1	2.4	1.7	1.5	1.3	1.0	0.8	1.0	1.2	0.9	0.9	0.4	0.2
SoundExchange Distributions	20.4	32.8	36.2	100.0	155.5	249.2	292.0	462.0	590.4	773.4	802.6	883.9	652.0	952.8	908.2	947.4
Synchronization	----	----	----	----	201.2	188.7	196.5	190.6	189.7	189.7	202.9	214.8	232.1	285.5	281.1	265.2
Vinyl Single	13.2	9.9	4.0	2.9	2.5	2.3	4.6	4.7	3.0	5.5	5.8	4.9	6.1	5.7	6.7	6.3
Total Revenue	\$ 12,289.9	\$ 11,759.5	\$ 10,650.9	\$ 8,776.8	\$ 7,831.0	\$ 7,013.8	\$ 7,135.6	\$ 7,015.7	\$ 7,034.6	\$ 6,694.7	\$ 6,710.8	\$ 7,491.7	\$ 8,503.2	\$ 9,738.2	\$ 11,130.4	\$ 12,153.4
Shipments (M)																
8 - Track	0.0	0.0	0.0	0.0	0.0	0.0	0.0	----	----	----	----	----	----	----	----	----
CD	705.4	619.7	499.7	368.4	296.6	253.0	240.8	198.2	173.8	138.7	117.1	97.6	86.7	51.8	47.5	31.6
CD Single	2.8	1.7	2.6	0.7	0.9	1.0	1.3	1.1	0.6	0.9	0.4	0.1	0.0	0.0	0.0	0.0
Cassette	2.5	0.7	0.4	0.1	0.0	0.0	0.0	----	----	----	----	----	----	----	----	----
Cassette Single	0.0	0.0	0.0	0.0	0.0	0.0	0.0	----	----	----	----	----	----	----	----	----
DVD Audio	0.5	0.1	0.2	0.0	0.1	0.0	0.0	0.0	-0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.1
Download Album	13.6	27.6	49.8	63.6	74.5	85.8	103.9	116.7	118.0	114.2	106.8	85.1	64.5	49.3	37.5	33.1
Download Music Video	1.9	9.9	14.2	20.8	20.5	18.4	16.3	10.5	8.4	6.8	3.2	2.1	1.4	1.1	0.9	0.9
Download Single	366.9	586.4	819.4	1,042.7	1,124.4	1,177.4	1,332.3	1,402.8	1,332.8	1,154.4	986.3	743.0	544.8	399.3	329.7	257.2
Kiosk	0.7	1.4	1.8	1.6	1.7	1.7	1.3	2.0	3.7	1.6	2.2	1.7	1.3	1.1	0.9	0.7
LP/EP	1.0	0.9	1.3	2.9	3.5	4.2	5.5	6.9	9.4	10.3	13.7	14.8	15.6	16.7	18.5	22.9
Music Video (Physical)	33.8	23.2	27.5	13.2	11.6	9.1	7.7	6.0	4.8	4.1	3.1	2.5	1.8	1.4	1.3	1.0
Other Tapes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	----	----	----	----	----	----	----	----	----
Ringtones & Ringbacks	170.0	315.0	433.8	405.1	294.3	188.5	115.4	58.7	39.4	26.6	21.9	22.6	14.3	10.0	8.3	8.1
SACD	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vinyl Single	2.3	1.5	0.6	0.4	0.3	0.3	0.4	0.4	0.3	0.5	0.5	0.4	0.4	0.4	0.3	0.4
Total Shipments	1,301.9	1,588.4	1,851.5	1,919.6	1,828.5	1,739.5	1,825.0	1,803.3	1,691.2	1,458.2	1,255.5	970.1	730.9	531.2	445.0	355.9

Notes: Streaming includes paid subscription services like Spotify, Apple Music, and Amazon Music Unlimited, ad-supported on-demand services such as Vevo, YouTube and the free version of Spotify, and digital and customized digital radio like Pandora, SiriusXM, and other Internet radio services. See "Year-End 2020 RIAA Revenue Statistics."

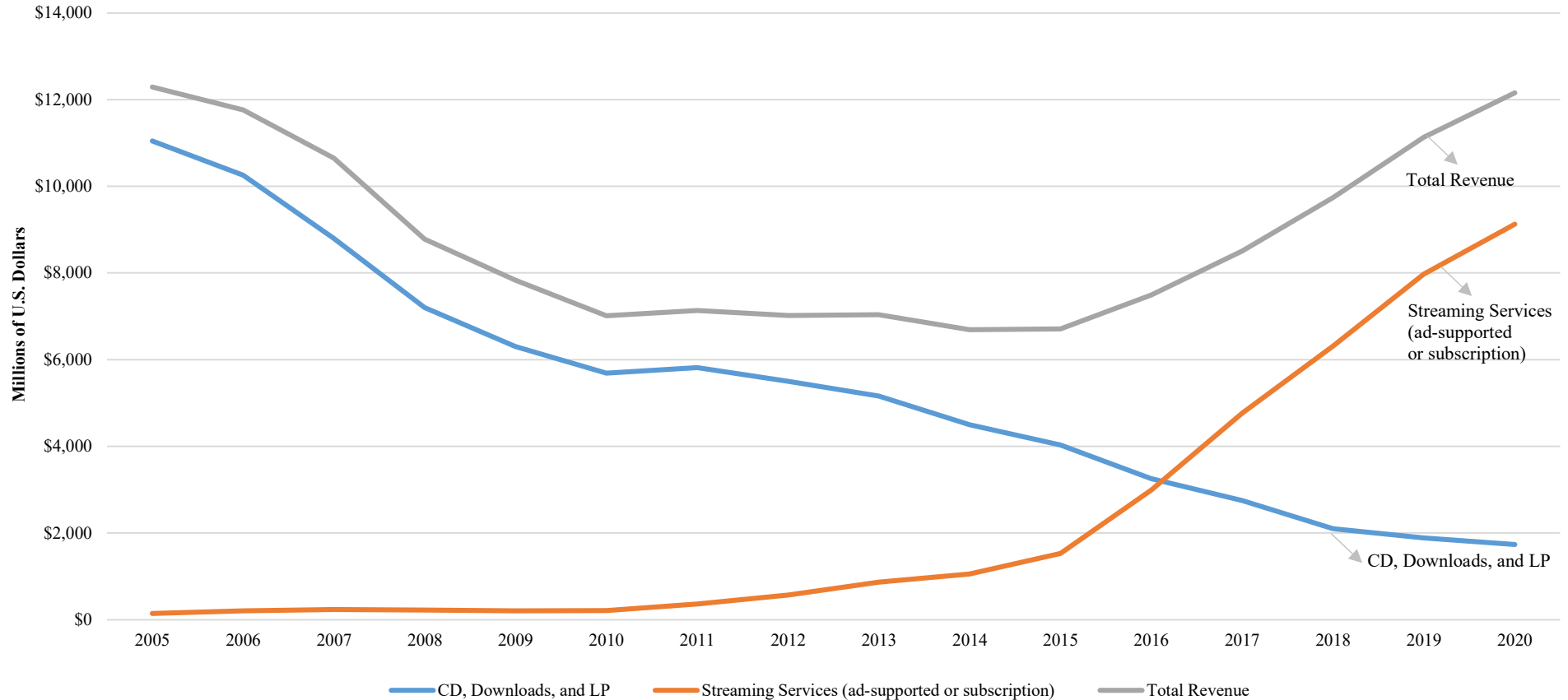
The RIAA does not provide shipments information on Streaming, SoundExchange, and Synchronization services.

Sources: "U.S. Sales Database," The Recording Industry Association of America, <https://www.riaa.com/u-s-sales-database/>. Last accessed October 11, 2021.

"Year-End 2020 RIAA Revenue Statistics," The Recording Industry Association of America, 2020, <https://www.riaa.com/wp-content/uploads/2021/02/2020-Year-End-Music-Industry-Revenue-Report.pdf>

APPENDIX F2

Appendix F2 U.S. Music Industry Revenue 2005 - 2020



Notes: Total Revenue represents the total U.S. Music Industry and includes revenues from music formats that are not represented on this graph. "CD, Downloads, and LP" includes revenues from CD, CD Single, Download Album, Download Single, and LP/EP. "Streaming Services (ad-supported or subscription)" includes revenues from Limited Tier Paid Subscription, On-Demand Streaming (Ad-Supported), Other Ad-Supported Streaming, and Paid Subscription. See Appendix F1.

Sources: "U.S. Sales Database," The Recording Industry Association of America, <https://www.riaa.com/u-s-sales-database/>. Last accessed October 11, 2021.

"Year-End 2020 RIAA Revenue Statistics," The Recording Industry Association of America, 2020, <https://www.riaa.com/wp-content/uploads/2021/02/2020-Year-End-Music-Industry-Revenue-Report.pdf>

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